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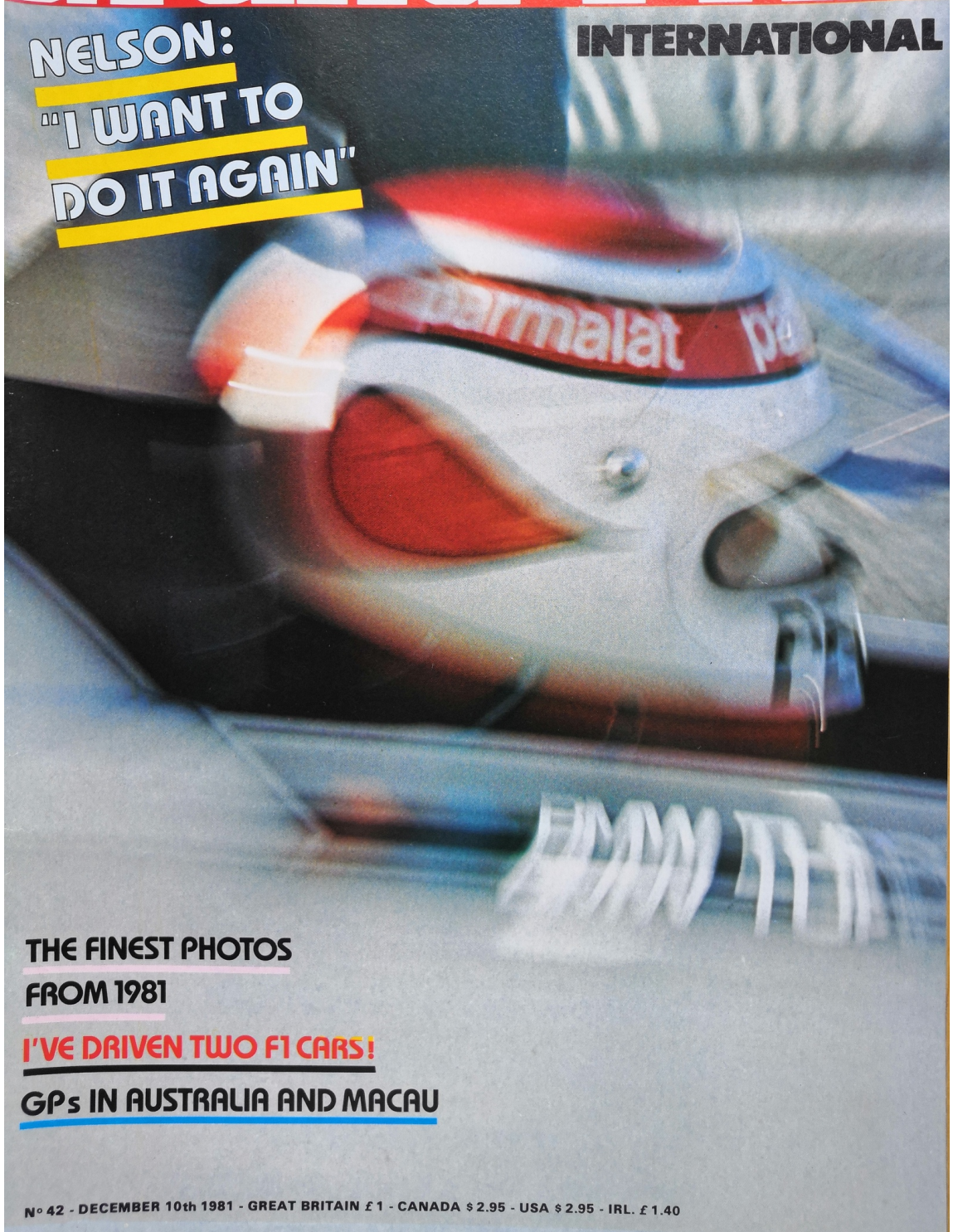

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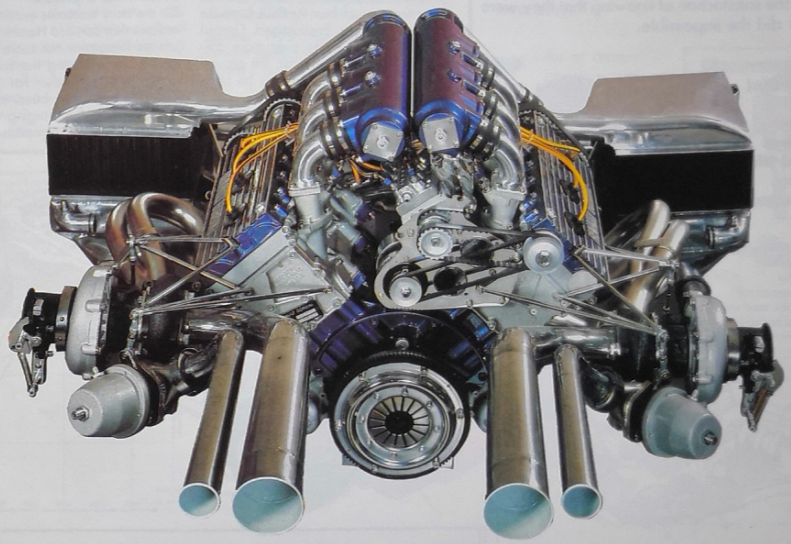
Renault and the Turbo...



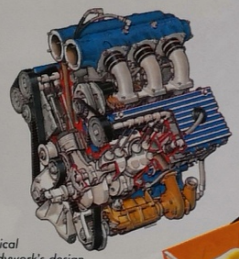
Winning bet!

Full circle: in 1902, Louis Renault was the first man to become interested in "devices which would increase the pressure of fuel in the cylinders," as proved by the patent which he put forward at that time !
That was a glorious era which saw Renault's first successes, not only in motor sport but also industrially, but since then, the company has grown out of the family business it used to be.
However, the passion for high technology and competition remains.
The choice of turbocharging is the best example in this history of consistency.
It is both an ambitious and considered choice, representing an additional feature against the competition, both on circuits for Formula 1 races, and in the public market place.
For Renault, the turbo today is much more than just a symbol.

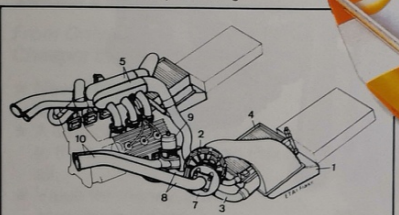
FROM COMPETITION...

Motor sport, like most other competitive activities, involves the furtherance of limits. In building the 1500 cc V6 engine, giving 540 bhp, the Renault-Gordini engineers have produced the engine which has the highest power per cylinder ratio in the world, working on commercially available fuel: 360 bhp.
But the results are not only theoretical, because Renault Sport's engineers have fitted the engine into the narrow confines of a Formula 1 car, capable of winning on the wide range of racing circuits throughout the world.
Today, most of Renault's competitors are working along similar technological lines: but the Renault men will always have the satisfaction of knowing that they were the ones that did the impossible.

Renault-Gordini Formula 1 V6 with twin turbochargers 1500 cc: 540 bhp at 11000 rpm. The furtherance of limits.



Drawings clearly showing the two turbochargers on either side of the engine. One can appreciate at just what point the mechanical elements are allied to the bodywork's design.



1. Air inlet at ambient. 2. Turbocharger. 3. Air under pressure. 4. Cooler for air under pressure. 5. Inlet manifold. 6. Engine cylinders. 7. Turbine. 8. Exhaust gases. 9. Regulator valves. 10. Outflow for exhaust gases.

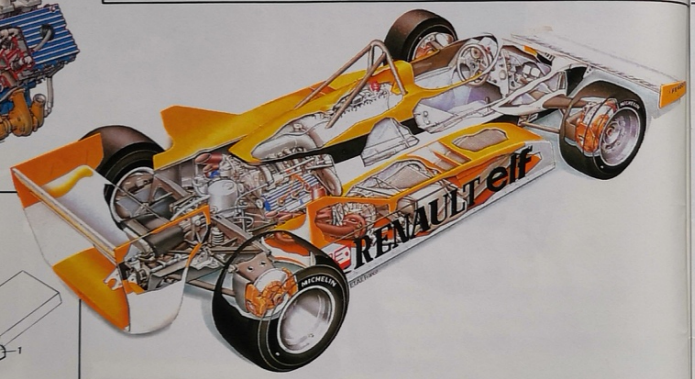
The "enfant terrible".

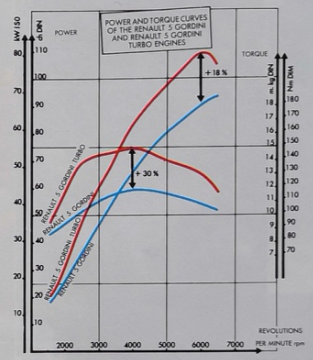
RENAULT 5 *Turbo*

The Renault 5 Turbo is without doubt the perfect example of close co-operation between Renault's Research and Development department and Renault Sport. This is the 'enfant terrible' of the Renault 5 range. It's been designed as a real competition car. It is for that reason that front wheel drive has been dispensed with, for by using a bigger turbocharger on rallies like the Monte Carlo, the engine develops 250 bhp, and to put that power onto the road, the car is mid-engined with rear wheel drive like a Formula 1 machine. The production version of the Renault 5 Turbo admittedly gives 'only' 160 bhp, but it is still the most powerful French sporting car. It's an exceptional car which, when used in normal current driving conditions, can still be a remarkably docile vehicle. The Renault 5 Turbo has everything to satisfy the sporting clientele for which it was designed, at the same time incorporating a standard of equipment and comfort worthy of grand touring cars.

The Turbo breathes

Spring 1979. Renault continues its apprenticeship in Formula 1. Disappointment is more common than success. Some people are quick to comment that by chosing a turbocharged engine, Renault is attempting the impossible. But there is confidence within Renault Sport. The Renault men are even satisfied with their performances so far, particularly when Jean-Pierre Jabouille claimed the team's first pole position (fastest time in practice) for the South African Grand Prix. Admittedly the altitude of the circuit was an advantage for the turbocharged car, but no one was expecting so much from the RS01, Renault's first Formula 1 car. Encouraged, Gerard Larrousse's team works even more dilligently to build the new car, the ground effect RS10 whose engine may be fitted with two turbochargers.
The Viry-Châtillon workshops are busier than ever. In the peace of the Regie Renault head offices at Boulogne-Billancourt, one man ensures that he's kept particularly well informed of developments. More than anyone, Bernard Hanon, Renault's new president director general, is aware of what is to be gained by the programme: the considerable interest that is created by Formula 1 throughout the world. He's also aware that Renault hasn't chosen the easiest course of action by being the first to use a turbocharged engine in this highly technological sport. But he has confidence in his engineers.
But the story becomes exciting when one realises that Bernard Hanon has another, just as important but more confidential reason for following the Formula 1 programme so closely. For some time, Renault's men had been exploring the possibility of turbocharging their production cars. And the comparisons with the competition department are of interest. Gerard Larrousse, competitions director of Renault Sport and Christian Martin, product director of Renault, frequently meet with Pierre Tiberghien, director of the car division's Research and Development department, and his assistant René Vuaillat. The evolution of the Renault 5 Turbo is an ideal example of their work. But the commercial hopes for the turbo models still on the drawing board are even greater.
How different, yet oddly similar, are these two models. On the one hand, there's the Formula 1 car, and on the other, the everyday transport of people throughout the world. Their objectives, particularly the economy of use, are completely different. Yet this paradox may be summed up in a word: efficiency, a word that's fixed in the mind of every motorist. In practice, competition efficiency means the maximum power obtained from a given quantity of fuel, while in production cars it means that a minimum quantity of fuel is necessary to give a pre-defined amount of power. While the themes appear to be opposites, the basic problem is the same. Research into turbocharging resulted in the technicians from Renault and Renault Sport working together more than ever before. The latter were able to impart information gained from that extraordinary testing ground, racing. In exchange, they benefitted from the latest and highest technology acquired in Renault's research establishments.
Summer 1979. Patience is rewarded. Renault takes a historic win at the French Grand Prix. A year later, the Renault 18 Turbo is launched, and both car and its welcome constitute another victory for Renault's engineers.




POWER AND TORQUE CURVES OF THE RENAULT 5 GORDINI AND RENAULT 5 GORDINI TURBO ENGINES
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TORQUE
+ 18 %
+ 30 %
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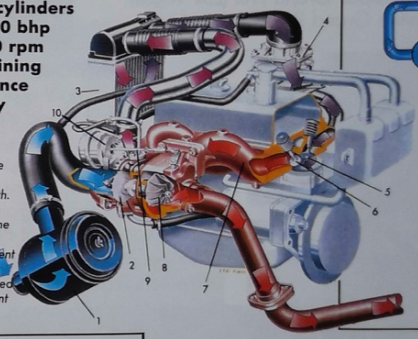
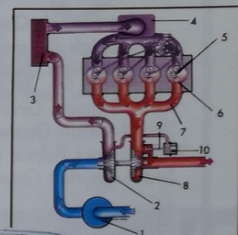
REVOLUTIONS PER MINUTE rpm

The curves that prove just how much turbocharging is worth. The Renault 5 Gordini Turbo engine has 18 per cent more power, and 30 per cent more torque than the basic non-turbocharged version with equivalent consumption.

Renault 18 Turbo 4 cylinders 1565 cc: 110 bhp at 5000 rpm Combining performance and economy



- Air at atmospheric pressure.
- Inlet air under pressure.
- Cooled inlet air under pressure.
- Exhaust gas.



1. Air filter. 2. Compressor rotor for inlet air. 3. Intercooler for air under pressure. 4. Pressurised carburettor. 5. Inlet valve. 6. Exhaust valve. 7. Exhaust manifold. 8. Turbine operated by exhaust gases. 9. Wastegate for exhaust gases. 10. Inlet pressure regulator capsule.

...TO MASS PRODUCTION

The idea of adapting turbochargers to mass production vehicles may seem surprising in an era when economy is of such importance. In Renault's research department, they wanted to prove that it was the sensible choice to make.
For that reason, they chose elaborate and sophisticated technology: normally aspirated and pressurised carburettors, pre-ignition detection, computerised ignition, etc. The turbo programme allows for a higher compression ratio, which results in excellent energetic efficiency. The figures and curves are there to prove that Renault's engineers were able to reconcile performance and economy.

Questions to...

GERARD LARROUSSE
Director of Renault Sport

– Why did you chose turbocharging ?
– At the beginning of the '70 s, Renault-Gordini developed an excellent V6 two litre engine which soon proved to be competitive. At the same time, Renault decided to enter the higher echelons of the sport. According to Bernard Dudot, who had just returned from a study tour of the United States, this modern and tough V6 was suitable for turbocharging, which would make it competitive with modern three litre engines. That proved to be the case, notably by our win in the Le Mans 24 hours against Porsche who was usuing the same technology. But unlike the German technicians, ours were of the opinion that they could go further: develop a 1500 cc engine which, when turbocharged, would give more than 500 bhp, that's to say, a Formula 1 engine, as the regulations call for an equivalence formula of one to two with normally aspirated three litre engines. I'm glad that our engine men evolved this method, previously considered impossible: that's their reward for their work and unbending faith.

– What are the advantages of this system ?
– In competition, the main advantage is simple. It allows for power to be increased by more than 80 per cent ! That's how we've been able to build an engine capable of winning the Monte Carlo rally using the Renault 5 engine as a base. But I must emphasise that it is usable power. It is obtained to begin with thanks to tremendous torque, and not simply due to very high revs. We have also ensured that the lower block of the engine and the conrod mechanism are not subjected to as much fatigue as that in normally aspirated engines which are higher tuned and sometimes subject to much greater vibration.

– And what are the disadvantages ?
– They originate from the advantages. Such power isn't obtained without risk to the combustion chambers and pistons. It's only due to the latest materials and cooling technology that we have been able to cure it. Then there's the well-known turbo-lag which we've been able to reduce considerably but which still exists to a small extent between low revs and where the turbo begins to be effective. It's a handicap which means that we have to compensate by developing more power than our competitors. As for fuel consumption, we're making consistent progress in this area in order to reduce the weight of our cars at the start of races.

– How much inter-communication is there between yourself and the director of research at Regie Renault ?
– There's a lot and often, most importantly, in terms of high technology. We use the services of the research department in order to solve particular problems (metallurgy and calculations, etc.) and I must admit that they provide us with the answers very quickly. In fact our collaboration goes even further in that an engineer from the research centre specialising in electronics is currently working within Renault Sport.

CHRISTIAN MARTIN
Product director of Renault

– Why did you chose turbocharging ?
– Our research department's work allows us to be consistently on the look-out for new avenues to explore, particularly those liable to give greater interest to the various areas of progress: customer requirements (pleasure, comfort, style etc.), fuel consumption (efficiency, weight, aerodynamics) and of course, price. We are always seeking a compromise between these three basic elements. Boosting the engine, and more especially turbocharging it, seemed to us to be one of these avenues which had many advantages and few disadvantages. Turbocharging gives greater driving enjoyment thanks to more engine torque and power that is freely available, coupled with improved engine efficiency, hence better fuel consumption. Furthermore, it's an element that is reasonably priced, so easily applied to mass produced cars. While the Renault 5 Turbo may be a pure sporting machine, the Renault 18 Turbo is proof that turbocharging can improve the compromise that I mentioned earlier.

– What are the advantages of turbocharging ?
– It's been pointed out that the main advantage is the combination of various factors brought about by turbocharging: performance, efficiency, simplicity, reliability and price which is easily supported in production.
But we've also worked on other methods of boosting the engine. However, they have all had major disadvantages, fuel consumption for example. But the turbo itself is an economic factor, partially because it re-uses energy that is normally lost through the exhaust, and also because it allows for improvements to be made in both pollution and noise levels.

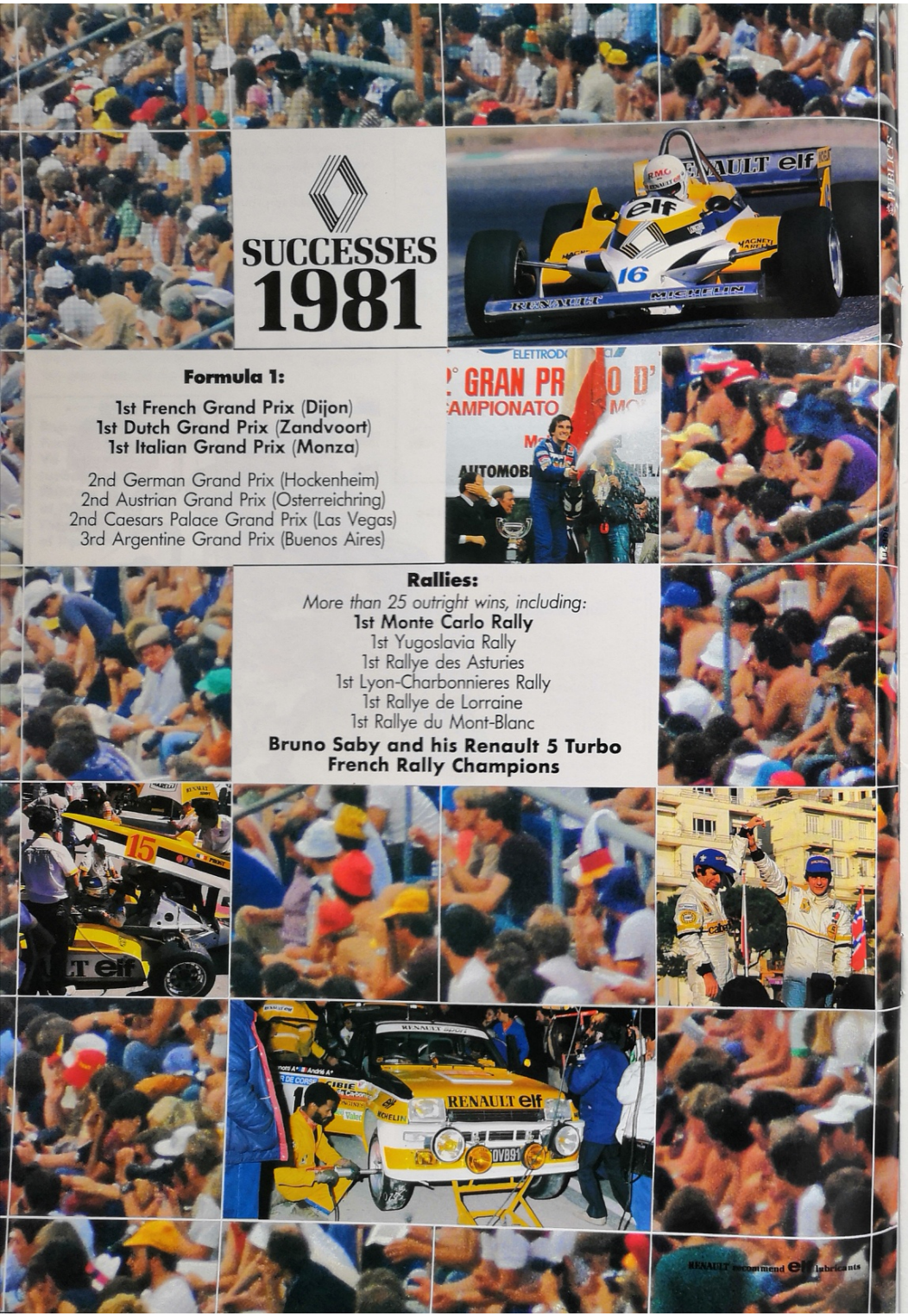
– And the disadvantages ?
– There are very few, and most of them have been considerably reduced by our engineers. Turbo-lag, a handicap in competition, has virtually been eliminated for road drivers. We've managed to do that by keeping the engine relatively productive in terms of power in the rev range where the turbo hasn't yet become effective. Furthermore, the turbo is an extra element, so there is a cost factor involved, but when you take the advantages and compare them with the disadvantages, the balance is most definitely favourable.

– How much contact do you have with Renault Sport ?
– Our competition programme has affected us on three fronts: image, technology and personnel. I don't have to explain the obvious promotional interest involving the company's image through rallying and racing, especially when the turbo is being applied throughout the entire range. Technically speaking, competition has the effect of exaggerating difficulties and high-lighting problems. That allows us to learn very quickly. Finally, but by no means the least important, there's the human aspect. To illustrate this, let me tell you that the engineer who developed the Renault 18 Turbo spent a number of years in the competition department.

Technically prestigious.

RENAULT 30 *Turbo Diesel*

Renault entered the diesel market with determination but without rushing in. First came success with the Renault 20 Diesel, followed by the Renault 18 Diesel which became leader of the French diesel market within a few months. But Renault wanted to go further, and manufacture a prestige model in the range.
The turbo was to become the determining factor. In fact boosting is particularly suited to diesel engines, particularly as detonation is simple and problem-free and the inlet is always wide open. Renault has tried to exploit these advantages to the full on the Renault 30 Turbo Diesel. That is why an air-air intercooler has been adapted for the first time on a diesel. The result, for a car of its type, is astonishing performance allied to a wide power band, as power is available at low revs. While retaining the economic advantages of being a diesel, the Turbo has brought prestige and advantages to this technology.



When the Champions go racing they go with Champion.

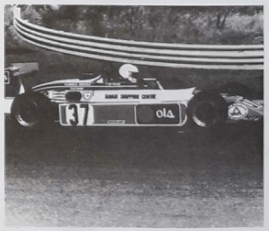
Saudia Leyland Williams, 1981 Formula I World Constructors' Champions.

Nelson Piquet, 1981 Formula I World Champion Driver in his Brabham Cosworth Ford.

Wolfgang Schütz
Renault 5 Turbo Cup Champion.

Mauro Baldi, Formula 3 European Champion in a March–Alfa Romeo.

Lancia Beta Monte Carlo, winner of the World Championship for makes.


Tommy Byrne, Formula Ford 2000 Euroseries Champion in his Van Diemen Ford.

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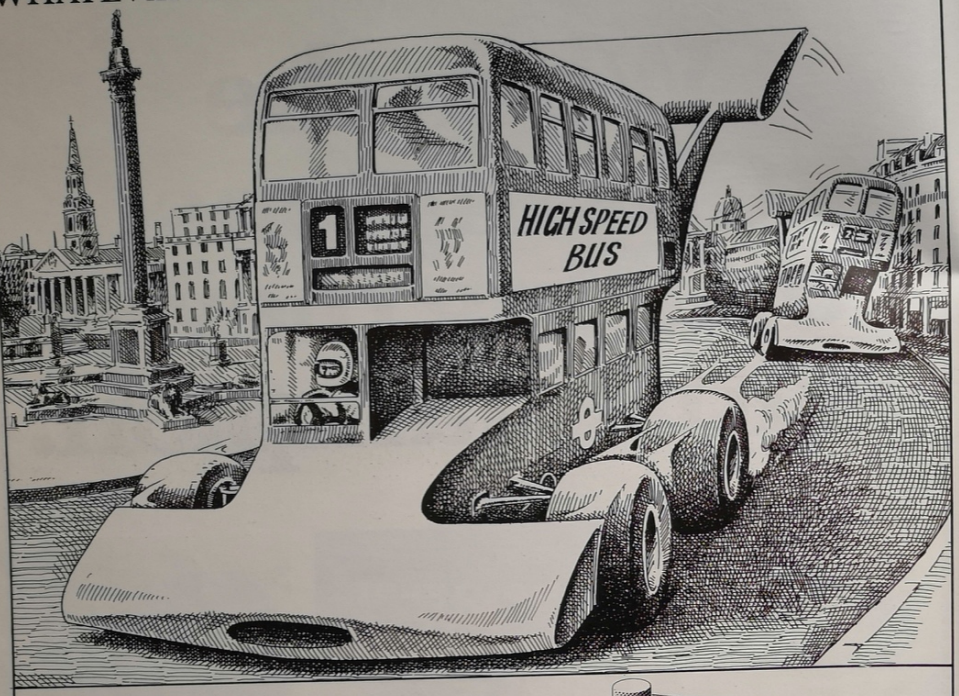

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IN THIS EDITION

PAGE 14

1982: LITTLE CLEARER THAN MUD

Our countdown to Kyalami. Just 46 days to the beginning of a new season, and there is a multitude of uncertainties on the Grand Prix grid. We look at how the teams may look when battle recommences in South Africa on January 23.

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NELSON PIQUET:

" I WANT TO DO IT AGAIN"

The World title hasn't changed Nelson Piquet. His life remains the same, as has his personality. Mike Doodson reveals how Nelson is as eager to win now as he ever was.

Nº 43 (SOUTH AFRICA) WILL BE ON SALE ON JANUARY 27, 1982

Grand Prix international

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COUNTDOWN TO ECSTASY

The editor lives out our fantasies in driving France's two Formula 1 cars.

PAGE 28

THE SEASON IN PICTURES

Our selection of the best Formula 1 photographs of the year: not so much a review, more an exhibition, bound together as a wonderful visual reminder of a season's F1.

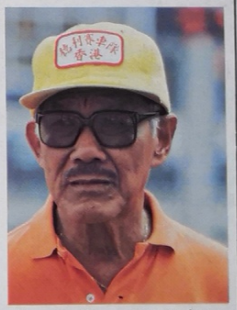
PAGE 44

NELSON AND JACQUES IN ALAN'S AUSTRALIA

Mike Doodson reports on the 1980 World Champion's private life Down Under, and how he fared racing on home ground against habitual rivals Jacques Laffite and Nelson Piquet.

PAGE 48

THE MYSTERIOUS MR YIP



From the mysterious East comes the last of Formula One's privateers: Teddy Yip. Keith Botsford captures the mixture of style, panache, business sense and generosity that make up this unique character in Grand Prix racing.

PAGE 50

NO CHEERS FOR YIP

Eric Bhat made his first visit to the East and found racing at Macau rather like that in his home town of Pau — but with one or two differences. Sadly, he was unable to report on a Teddy Yip win...

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THE 1981 SEASON STATISTICS

Some different tables, giving different winners.

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THE 1981 SEASON, TEAM BY TEAM

The trials and tribulations of each Formula 1 team in 1981.

The Formula One magazine is published 10 days after each Grand Prix.

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1982: LITTLE CLEARER THAN MUD

A lot of question marks will disappear from the Formula 1 scene when the Grand Prix circus congregates at Kyalami for the first race of the season on January 23. The South African GP opens next year's season, just as it used to before North and South American races inherited that honour. So it will be Nelson Piquet's first opportunity to defend his title, but who will be his main competitors? Despite many uncertainties, one thing is for sure: Renault start 1982 as favourites, and at Kyalami's altitude, the turbocars should kick off the year with at least nine points.

by Xavier CHIMITS

While Renault's adversaries desperately try to sort themselves out in the rapidly decreasing period before the next Grand Prix, Renault appears to be more settled than any other team. Brabham are undergoing the delicate change from Cosworth to BMW, Ferrari search for a competitive chassis, and other teams are still to sign their drivers. But no such problems affect Renault. The team's form during the second half of the 1981 season clearly indicates that they're on top of the job. The team's engineers have not only made the turbo reliable, but also competitive on all types of circuit, as the races at Montreal (in the rain) and Las Vegas proved. So Gerard Larrousse's aims have been fulfilled. Only the title itself remains. And when mentioning the title, most people tend to think of Alain Prost. Apart from a mistake at Jarama, the little Frenchman covered a faultless season which was rewarded by a fruitful end-of-season campaign. His meteoric rise to the summit of Grand Prix racing in just two years reminds one of Nelson Piquet's career, one that resulted in the title in the Brazilian's third year of Formula 1.

It is that same Piquet that highlights Prost's responsibilities in 1982. Up until now, Prost has been regarded as a newcomer, someone still learning the game. But after such a promising 1981 season, Prost, as leader of the fancied Renault team, is no longer a beginner. He must win the title, if he is not to disappoint and disillusion those who expect so much of him. It's flattering to be looked upon as a future World Champion, but it isn't an entirely comfortable situation. How will young Alain adjust to such a position of responsibility? We shall know in the fullness of time. But he will be ably backed up by René Arnoux, no slouch himself, who will be eager to grab every opportunity that Prost allows him.

The Renault team has a fair number of plus points on its side, but there is a wild card in the pack: tyres. Goodyear's attack in this vital area is in two parts: firstly the quality of tyres produced, and secondly on a political and commercial front. Even if it's impossible to tell which company produces the best

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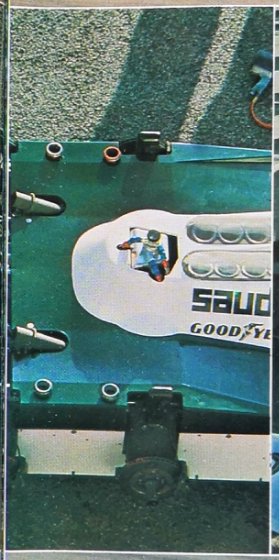
The faster the Williams six-wheeler becomes, the more familiar it seems. Keke Rosberg's times have been sufficiently encouraging for Williams to start work on a second, purpose-built chassis. (Photos Morelli-Bertier).

For Renault, the winter priorities have been the development of fuel-saving electronic ignition and the experimental gearbox designed by American Pete Weismann. (Photo Bernard Asset/A + P).

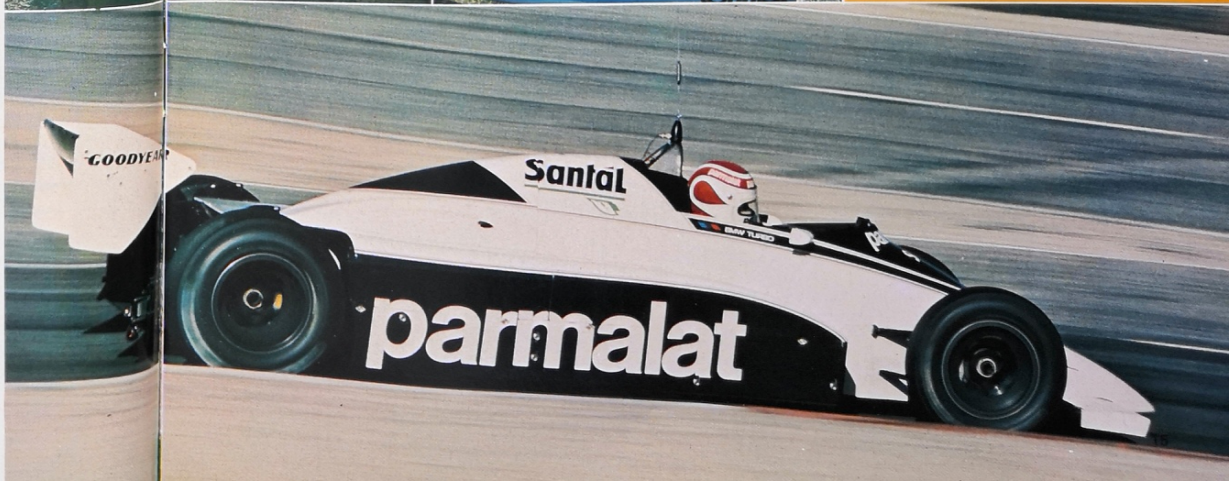
Ferrari has made a surprise switch back to Goodyear rubber after four years on Michelins. New bodywork has been tested and there will soon be a honeycomb monocoque designed by Harvey Postlethwaite. (Photo Morelli-Bertier).

Car to beat in 1982? Further work on Brabham's BMW-powered BT50 turbocar has made it almost as quick in Piquet's hands as the BT49 in the hands of his new team mate Patrese. There are still some ignition problems to be sorted out by Bosch, while designer Gordon Murray has some aerodynamic modifications well in hand in readiness for Kyalami in January. (Photo Bernard Asset/A + P).



calendar

January 23: South Africa
March 7: Argentina
March 21: Brazil
April 4: Long Beach
April 25: San Marino (Imola)
May 9: Belgium
May 23: Monaco
June 6: Detroit
June 13: Canada
July 18: Great Britain
July 25: France
August 8: Germany
August 15: Austria?
August 29: Switzerland (Dijon)
September 12: Italy
October 16: Las Vegas



tyres, the American company has made considerable financial efforts in research and back-up to contracted teams during the off-season. Michelin's men must be regretting the fact that they didn't sign up exclusive deals with the major F1 teams at the beginning of last year. It was a mistake which has allowed Goodyear to return in strength, and to woo Michelin's most prestigious client, Ferrari, away from the French fold.

In changing tyre manufacturer, the Scuderia perhaps hopes to cure its major road-holding problem in one stroke. But as well as new tyres, there is Harvey Postlethaite's new chassis, and revised bodywork already seen at Ricard. The team isn't doing things by halves. Those who believe in Goodyear say that the combination of American tyres, an already proven engine and two talented drivers in Gilles Villeneuve and Didier Pironi could hand the World Championship to Ferrari on a plate. Others say that Ferrari has chosen Goodyear as a scapegoat in case Renault beat them. Only time will tell.

Two top teams are still resisting the fashionable wave of turbochargers: Williams and McLaren, although the latter should be equipped with a Porsche V6 turbo in 1983. Next season could well be the last for the all-conquering Cosworth. William's six-wheeler has proved to be competitive in initial testing in Keke Rosberg's capable hands, while McLaren hopes that Niki Lauda can continue the development of John Barnard's superb carbon fibre MP4. Despite promising times set recently at Circuit Paul Ricard, Lauda recognises the fact that he's unlikely to be a fully competitive front-runner within the next four or five races. But it is possible that the Austrian's presence will have considerable moral repercussions within the team. Whether these will be beneficial or not remains to be seen...

In adopting BMW's four cylinder turbo engine for 1982, the Brabham team may have committed itself more to a programme of development for the Brabham-BMW BT50 rather than trying to follow up Nelson Piquet's World Championship with another successive title. All the same, the car's progress has been considerable. If the comparative times set by Riccardo Patrese (Cosworth engine) and Nelson Piquet (BMW engine) are anything to go by, Gordon Murray's modest hopes for 1982 could be easily exceeded. In order to speed up development of the BMW engine in the BT50, Brabham has offered testing contracts to Thierry Boutsen and Corrado Fabi. The test and development programme will be run concurrently with the Grand Prix schedule.

Ligier's plans are less ambitious. The Talbot-sponsored team will remain faithful to Matra's V12 until the turbo engine has been proven reliable. The new Jean-Pierre Jabouille-inspired Ligier won't appear before the start of the European season.

That's the current situation with the top teams and their machinery. But the driver situation is infinitely more fluid. Only five teams have announced their driver pairings for the forthcoming season: Renault, Ferrari, Brabham, McLaren and Ligier. The rest are the subject of daily rumouring. And all because three drivers have yet to make up their minds: Jones, Reutemann and Andretti, It's highly unlikely that the first two will return to Williams together. But there appears to be every reason why one or the other shouldn't recapitulate on his retirement decision and return to the team as number one, where he would almost certainly be backed up by Keke Rosberg. If that happened, and Andretti remained with Alfa Romeo, major changes would be relatively few, except among the smaller teams. However, if Jones, Reutemann and Andretti all pulled out of Formula 1, then there's no knowing what might happen. De Angelis would like to join Giacomelli with Alfa, Williams has run Jarier and Palmer as well as Rosberg, Mansell will certainly remain with Lotus and Tambay is said to be signing for a third term of office with Teddy Yip. The rest, at the moment, is journalistic fiction.

Theoretically, the closing date for entries, laid down by FISA, is December 15. Things should be much clearer then, although even that can't be certain. Imagine what would happen if Jones or Reutemann changed his mind after that date? Would they really be prevented from driving in Formula 1 because of the entry regulation? It might be embarrassing for Jean-Marie Balestre... but maybe that's what Jones has in mind!

What will be announced on December 15 are the new Formula 1 regulations, following the FISA technical commission meeting. Three modifications are almost certain: the ground clearance regulation, currently monitored and enforced by laser checks, will almost certainly be lifted, outdating hydro-pneumatic suspension systems; a weight limit drop of five kilos; and the legalising of skirts and their rubbing strips. The Federation and constructors are both in agreement. Ferrari, traditionally the odd team out, may still upset the apple cart.

Pessimistic end-of-season rumours surrounding some of the less moneyed teams appear to have been ill-founded. No teams have threatened to withdraw from the fray. Maurer hopes to enter at least one car once the European campaign is under way, while Ensign, ATS and March hope to enter two cars. They can do this as the permitted number of cars entered has been raised from 30 to 34, a system of pre-qualifying reducing this to 26 on the grid for all Grands Prix except Monaco, instead of the previous 24.

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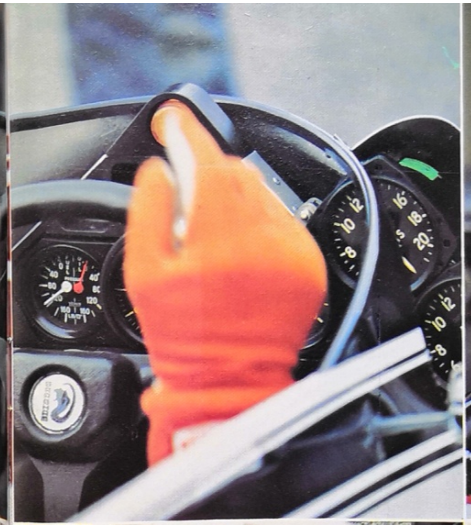
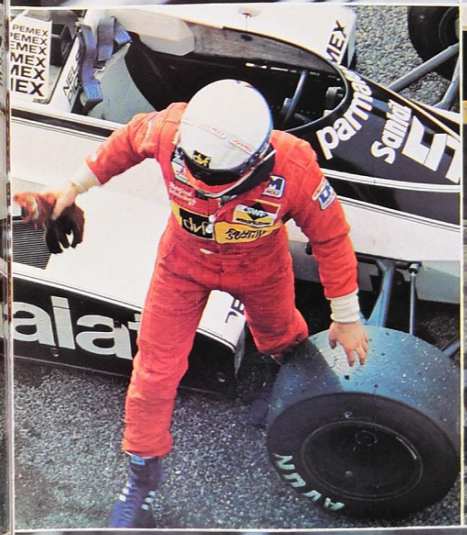


Riccardo Patrese's Brabham debut has been astounding, the Italian proving that with the right machinery, he can be as fast as anyone. (Photo Bernard Asset/A + P).

A new name in the Osella team next year will be that of Riccardo Paletti. After a year and a half in F2, this Italian replaces Gabbiani thanks to Pionneer's support. (Photo Bernard Asset/A + P).



The bernie Ecclestone "driving school" at Circuit Paul Ricard found various drivers testing the Brabham BT49, including Thierry Boutsen, Corrado Fabi, Manfred Winkelhock, Jacky Ickx and Geoff Brabham. (Photo Bernard Asset/A + P).

Lauda is back, already training and testing in earnest. He thinks modern suspension is ridiculous and the regulations are badly written, but he's applied himself with determination. He says he'll need at least four or five races before he's be fully competitive. (Photo Morelli-Bertier).

Eddie Cheever's initial testing with the Talbot-Ligier team has been a success. He's been accepted by the Frenchmen, and is delighted to be testing, a job he's carried out with enthusiasm and ability. (Photo Bernard Asset/A + P).

"I WANT TO DO IT AGAIN"

By throwing himself one hundred per cent into the important programme of testing the Brabham-BMW turbocar in readiness for 1982, Nelson Piquet has shown that he will not be content with just one world championship. At 29, the Brazilian sees a long future for himself in F1... and he's prepared to make sacrifices in order to win a lot more races.

by Mike Doodson

This winter, the most important personal project for Nelson Piquet will be to move into a larger apartment. He's found the right place, in the same Monte Carlo high-rise where he's made his home for the past two years, so it won't be too far for him to carry his hi-fi and small collection of furniture. He'll keep the same garage spaces for his Mercedes 500SEL and the BMW 635. One thing, though, will not change: "just one bedroom," he insists, "otherwise people will come to stay."

The new world champion values his relaxation time more highly than almost any of his predecessors in the past ten or more years. It was Jackie Stewart who set the promotional pace which has motivated recent world champions, most of whom have faced a calendar full of factory visits, hand shaking sessions with sponsors and their customers, lunches and dinners where they're asked to make polite speeches on subjects with which they're often totally unfamiliar.

Such activities bring in cash. World champions of any kind are in constant demand, and even non-conformists like James Hunt have been willing to exploit their uniqueness. Hunt demonstrated his contempt for formality by making frequent appearances in his everyday garb of jeans and tee-shirt.

Nelson, though, plans to ignore such requests. "I can shake hands at the races," he says. "I don't want to stop racing for a long time. It's impossible to say when I will stop, but I think the most important thing is to avoid the sort of aggravation which other people have had before me, either with their team or with the people they work with. I hate having to travel on some promotional trip or other. I prefer to make much less money, drive for a good team, and stay at home as much as possible. That's one of the reasons why I didn't sign for the McLaren team."

In August it was rumoured that McLaren, or more accurately Marlboro, had offered Piquet as much as two million dollars (over one million sterling) to lead the revamped McLaren International team in 1982. Piquet spoke to the Marlboro people, but he didn't really want to leave the Brabham team and his mentor Gordon Murray. He signed a new contract with the team from Chessington which had guided his F1 fortunes for the previous three years. The paddock grapevine suggested that he had happily settled for only one third of the three million dollars with which Frank Williams was trying to tempt Alan Jones back to F1...

There's something quiet and serene in Nelson's character which contrasts sharply with the noisy and intrigue-filled career which he has chosen to pursue. He neither seeks publicity nor reads any of the words that are printed about him, unless they're pushed under his nose by the ever-vigilant Sylvia, his Dutch girlfriend. The outburst at Zolder against Alan Jones came as a surprise, both to Nelson and his friends: "Alan did something wrong when he pushed me off the road in that race. I know I should have stayed quiet after that incident. In fact, I respect Alan: he was fighting for the same championship as me. If he stays in racing, we will be fighting again, because we both want to win races."

He has been less charitable about Carlos Reutemann, who was to be the principal rival at the final Las Vegas shoot-out. But in the end, Nelson was sympathetic about his fellow South American, whose championship bid — based as it was on points rather than victories — came so badly unstuck in the final analysis. "He was *so* nervous in that race... he was looking in the mirror more than he was driving the car. When I got behind him, I could see that he was so worried about me that I was going to pass him, no doubt about it."

By rejecting the pressures that weigh on most world champions in their "reigning" year, Nelson expects to devote himself entirely to the development of the exciting Brabham-BMW turbocar. He sees 1982 as a year of consolidation with the BT50 which has been built to accomodate the four-cylinder BMW engine, and 1983 as an opportunity to make another serious attempt on the championship.

"Perhaps during the winter I will make a few compromises with myself: I have to go to Brazil and do some work with Parmalat, and maybe I will go to some of the racing car shows in Germany. But next year I will just race and do the testing with the car, nothing more. That way, I can enjoy Formula 1 and have much more free time."

His enthusiasm for the BMW project increases with almost every test session. "We went to Donington Park after Las Vegas, for two days. The car was fitted with so much telemetry equipment that it was probably 40 kilos over the weight limit, and we were using old tyres because we weren't going for a time. But do you know what speed we were getting on the little straight? One hundred and eighty-two miles an hour! That's probably 20 mph faster than with the Cosworth. I think the car is probably already one second, maybe a second and a half, faster than the old one round most circuits. Throttle lag? Forget it. There is no lag at all. It works like a perfectly normal engine, but with big, big power.

"Yeah, I think we will be racing the turbo from the start of the year. It's a risk, but I think we have to take it, so that we will be ready as soon as possible for 1983. I'm not so stupid as to say that we'll win every race in 1982. But we have to be ready, because the way that Renault and Ferrari are going, there will be no chance for the Cosworth cars. And I think we will win some of the races by the end of next year."

Asked to nominate his own favourite for the 1982 title, Nelson doesn't even have to stop and think. "Prost," he says, though he admits that it's results rather than close personal observation which leads him to that conclusion. "It's strange that I don't know much

about his driving. I don't think we raced against each other very much this year: either he's been using his power to get away or I've been overtaking him when he breaks down. Even in F3 I can only remember a couple of races with him, and he was still learning then. I don't have contact with him yet. I'm sure that will come..."

Indeed, Nelson doesn't cultivate friends among other drivers. A couple of exceptions, in Monaco, are Jody Scheckter and Eddie Cheever. "For a long time, Cheever was just a name to me. When my friend Alex Ribeiro was racing in F3, I heard about battles he had with Eddie. Then when I came to Europe I remember a saloon car race in which he had a big fight with Ronnie Peterson. We like each other: Eddie sometimes phones and we go out together."

Scheckter is another occasional dinner companion. "He's a very nice person, we have good discussions. But I don't want to get involved in GPDA business like he was. There's so much politics, so much aggravation, that you can't concentrate on racing if you work for the GPDA."

Indeed, Nelson has steadfastly stayed away from any form of demonstration which might associate him with the GPDA "militants." When there was trouble before the starts of both the Belgian and Monaco GPs this year, he sat throughout in the isolation of his Brabham's cockpit, belted and helmeted, with his eyes staring forward.

Unlike most F1 drivers, he's satisfied that everything is being done to keep things safe, at least by Brabham. And having survived what looked like a very serious impact when a tyre failed in the early laps of the British GP at Silverstone, he is probably justified. "There are other kinds of racing that are much more dangerous than F1, you know..."

He used to be a tournament-standard tennis player, but has given it up. "I lost interest because I play so badly now," he explains: "when you stop you get slow and lose your concentration. And without anyone good to play, you lose enthusiasm." Some people might suggest that he's a bit lazy: he much prefers the sun and the seaside, which Monaco offers in abundance. These days he stays fit by water skiing and wind-surfing. Maybe he should work out more: he says that he collapsed after the Las Vegas GP because of the nervous tension, but it was being said before the start that Nelson was the most likely of the three championship contenders to "fade". And the doctor who treated him said that he had used up every ounce of adrenalin.

The reserves on which Nelson must have been drawing in those last few laps at Vegas were almost certainly moral rather than spiritual. Although he has been racing in Europe for only five years, and has been extremely fortunate in his choice of team, he has constantly demonstrated the determination which ultimately served him so well at Vegas. He spent much of his first, "European," season of F3 racing both working on the car and, often, sleeping between its wheels on the transporter because he couldn't afford a hotel.

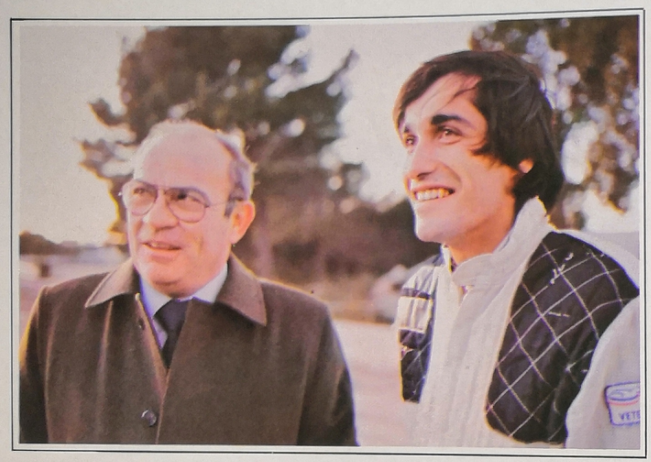
He has a knack of making good friends, both in Brazil and Europe, and he acknowledged them by name when he gave his press conference in the Caesars Palace press room. There was a Brazilian photographer who helped him to buy his first Super Vee; Greg "Pee Wee" Siddle, the Australian who helped him to run his successful season of British F3 racing in 1978; and of course Gordon Murray, the Brabham designer.

"Gordon was really nervous before the start of the race, we all were. But Gordon had been trying to win a world championship for 12 years... and we were only one point away from the title. It must have been pretty bad for him, because he left the circuit before the end of the race, to catch a plane home, and he had to wait for them to broadcast the result on the radio. I know that the championship was important to him, because it shows in little ways. When he calls me on the phone, for example, he calls me "champion."

Nelson's own attitude to winning the title was more restrained. "Looking back, I got the same satisfaction from everything new that I did. Winning my first heat in karts was nice, and I can remember my first wins in F3 and F1 because I felt so *good*. After I won the world championship, people told me that it was important because it goes into history, that sort of thing. It doesn't bother me, I don't bloody care about that. I enjoy the satisfaction of winning.

"I just want to have a simple life now, going racing in the GPs and testing in between. That's all I'm interested in, even if it means less money. And I want to carry on doing it for as long as possible. Because when you are as happy as you are after winning *any kind* of motor race, there seems to be nothing which can make you happier..."

COUNTDOWN TO ECSTASY



Gee whiz, what an opportunity! Offers from both Talbot and Renault to drive (or, being realistic, to *try* to drive) their Formula 1 cars. It was like a month of Christmas Days, and me the small boy showered with presents. Somehow, though, it's almost impossible to find the words that describe the sheer thrill of it all.

by Eric BHAT

To tell the truth, there's not much that I can say. The experience turned out to be so intense, so *thrilling*, that mere words are incapable of telling it like it was. Looking back on it now, it seems so long ago. In fact, no sooner had I got out of the cars, both of them, than suddenly the experience became part of the distant past. There's no way that I could ever express what I felt. Unlike other articles that I've written in the past, and may write in the future, what follows is no more than a pale shadow of that brief reality which was mine when I climbed into those two cars, the Ligier-Talbot and the Renault-Elf.

I tried to approach the project as just another piece of reporting: "Joe Soap drives F1 car: what was it like?" To add depth and credibility, I almost wished that it would have an apocalyptic element. I expected to stall a dozen times before I got away. I imagined that I would spin wildly when I stomped on the throttle, certainly that I would miss gears. No doubt I would over-react with the wheel and zig-zag madly. Surely I would get the fright of my life. It would naturally provide the material for a great piece of writing.

So much for my expectations. Imagine me like a journalist visiting San Francisco. Secretly, he hopes that an earthquake will strike while he's there, providing him with a great subject. Well, I went to San Francisco and there was an earthquake. The trouble is, all I could think about was saving my skin... In effet, driving an F1 car turned out to be so exciting that I forgot completely that I was a reporter. It was such a compelling *personal* experience that I am unable to tell it truly as it was. I can't recollect, even now, a couple of weeks later, whether I was in seventh heaven or in a state of shock. It was the first time in my life that I had been through an experience without knowing what I was doing while I was doing it. Presumably my heart beat absurdly quickly. But I never noticed.

Whether it's in sport, in sex or in straightforward intellectual reasoning,

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Zero hour approaches. Jean-Claude Guenard conducts the final briefing. An amused Guy Ligier and Eddie Cheever watch. A dream (or nightmare ?) comes true. (Photo Bernard Asset/A+P).

Who is the crazier : the journalist who dares demand an F1 drive, or the constructor who obliges ? (Photo Bernard Asset/A+P).

A Feeling of power, brute force and control... and also an ability to spin. (Photo Bernard Asset/A+P).

I personally don't believe that I will ever go through such a powerful experience again. I know, however, that my power of recall is embarrassingly absent. The words are weak and lack the weight which the occasion demanded.
I am now beginning to understand, though, why racing drivers are so often pushed for words when they're asked about what it's like to drive their cars. In spite of the noise, in spite of the dicing and the overtaking, and regardless of the accidents, there is no way that an outside observer can get an idea of what is going on inside the cockpits of the cars he's watching. No matter how powerful an impression one takes away of a race after it's over, there is nothing in common between the visual effect and the actual driving. To get a glimpse of the truth the only thing to do is to get into one of these cars yourself.

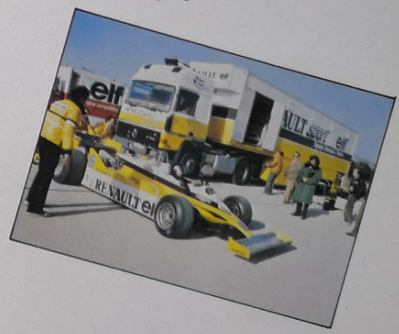
Nevertheless, things were different for me insofar as the whole experience was new. To that extent, I suppose I felt it more intensely than a regular F1 driver would. By a factor of ten, I reckon. Raw emotion: virgin territory, a step into the unknown, all that rot. My own enthusiasm and curiosity, I hoped, would make it easier for me. The first time is often the best, and logic says that there should be lots to talk about. I should have had a hundred things to say after my "test" was over (the word is so presumptuous that it embarrasses me to use it). In fact there's only one memory, a jumble of things that can only be recalled in brief flashes. And even those are no more than the visible tip of a giant iceberg that's still melting somewhere in my subconscious.

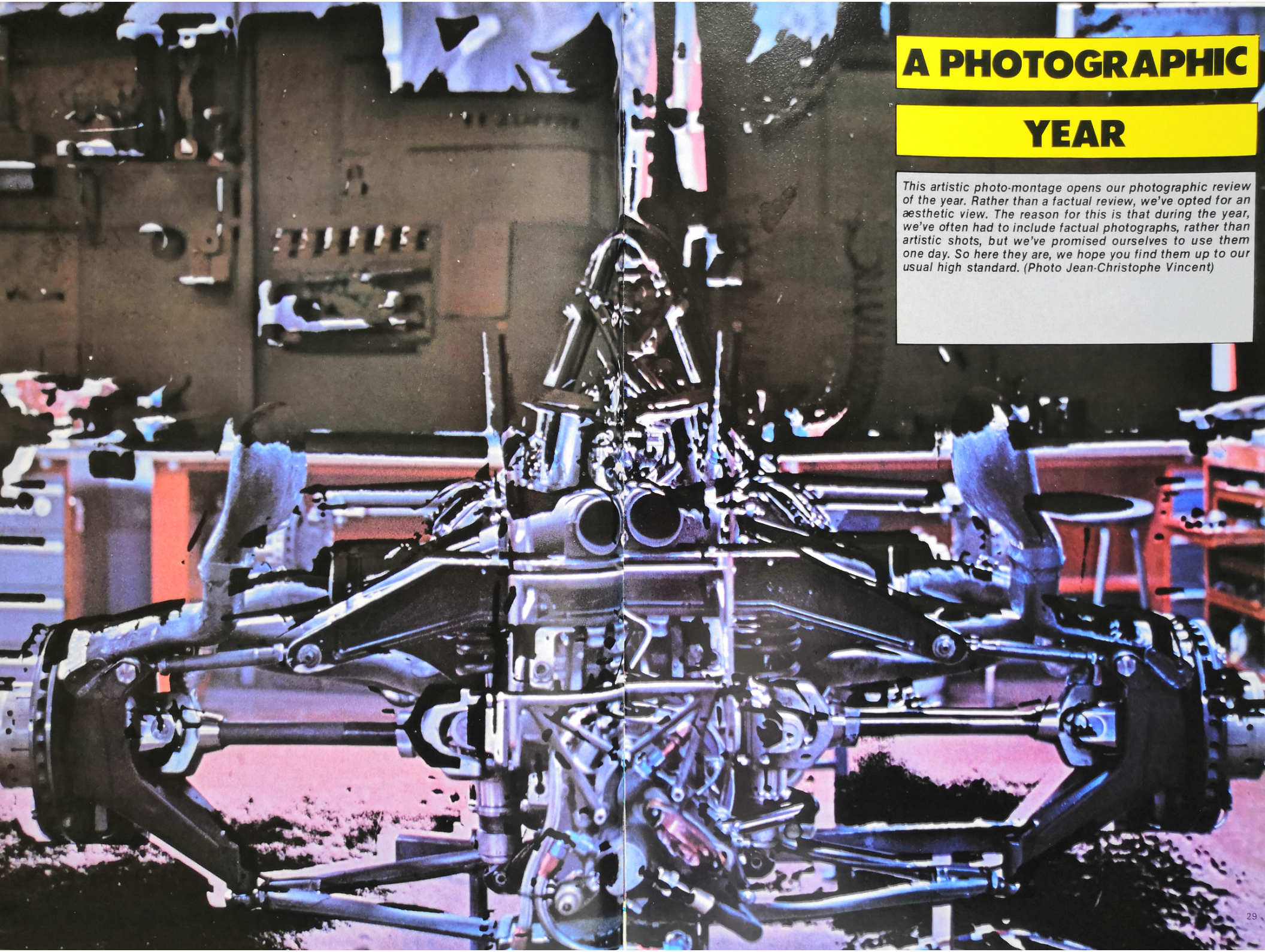
It happened at Paul Ricard at the end of November. The "junior" circuit. Eddie Cheever had stopped practising in order to let me take over "my" car. It was getting dark and the air was cold. I was quaking.
Nevertheless, my introduction to the beast was reassuring, notwithstanding the shakes. Being the same height as Eddie, I found, once the six point harness had been cinched around me, that I was a good fit. Borrowed helmet, ancient overalls. Gloves borrowed from Eddie. Peering down at me is Jean-Claude Guénard, the chief mechanic. He rarely says much, which is hardly reassuring now. "OK, now you know what the cockpit looks like. You'll find first gear towards you. The other four gears are in the regular pattern. If the engine hiccoughs in the corners, use the accelerator pump. It's on the left, beside the steering wheel. OK, pal, she's all yours..."
He stalked off. I had expected a 45 minute briefing, but that was it. I was shit scared. Back to the wall. No way out now. The V12 rumbled playfully away behind me. Let's get the show on the road. I even moved off without stalling the thing.
I can't remember a blind thing about the first minute, nor even the second. Only after three laps, say, did the full realisation of what I was doing sweep over me. Here are a few jumbled impressions.
First of all, from the physical and visual point of view, I had to make a sudden reassessment of the relation between space and time. It felt as though I was going ridiculously quickly (the truth is that in F1 terms I was dawdling). Something kept telling me that unless I braked I was going to kill myself. So I hit the pedal. And the car slowed instantly, as if it had been nailed to the road. This left me going pitifully slowly, still miles away from the corner, and having to accelerate up to it all over again.
It worked the other way as well. At the end of the straight, before the return loop, there's a super escape road. So I told myself to take advantage by leaving my braking to the last possible moment, secure in the knowledge that even if I misjudged it, then no harm would come. So, charging along in 5th gear at god knows what speed, I left things to the last. But as soon as my foot hit the pedal something inside took control and refused to let me turn into the corner. With the hairs standing up on the back of my neck I took to the escape road.
Yet I knew that the car was capable of doing it, even if my overdeveloped sense of survival did not. It was not the Ligier which lost its nerve, it was my subconscious which took over rather than allow me to risk putting the whole plot into the guardrail.
So there I was, stuck halfway up the escape road. Needless to say I managed to stall the thing as I fished around for reverse. Thank God for Guénard and his portable bottle of compressed air for the starter. "Do you want to do a few more laps?" he asked. You bet I do: there's no stopping me when I'm having fun. I had imagined the party was over, but here we go again.
Psst... aaaargggh... vrooomm, vrooomm. We're under way again. You get a feeling from a thoroughbred like the Ligier, brute force and perfection at one and the same time. The slightest unevenness in the asphalt is transmitted directly through the seat of your pants. F1 drivers complain about it, constantly. Sorry, chaps, but I love it. The car feels wilful... yet somehow also obedient. In the corners there's yet another paradox: although it feels as though it's going at lunatic speed, it also tells you that it will corner at least 60 mph faster than you're going. Another paradox: in spite of its brutal reactions, I feel condident... until my confidence plays a trick on me. I thump a kerb before the pits and wham! Before I can correct it, we're spinning into sudden (and ignominious) retirement.
A glance towards the pits, where Guénard's gestures leave no doubt that my affair with this blue temptress is at an end. The party's over. I release the belts. Perhaps because I had been concentrating so hard, I realise that the car has not intimidated me. I now have some idea of what it can do. Guy Ligier moves over towards me, chuckling. I hope I managed to say something to him in thanks, because I can't remember now. I hope I didn't act like a dolt, because my brain was still whizzing around Ricard...
Two days later, I'm buckling up again. This time we're with Renault, not on the Ricard circuit but staring down the runway of the neighbouring airfield. No sooner do I climb into the yellow turbocar than I realise that it's been built for a dwarf. My knees are hard up against the dashboard and I need a piece of rubber foam to stop the coachwork fretting through the back of my overalls.

I had been warned that the Renault was more difficult to drive than the Talbot, although strangely I was less nervous. Perhaps it was because several of my fellow hacks had already had their turn, and they seemed none the worse for the experience. Once again, gloat, gloat, I didn't stall it. It was a nice idea to let us loose on a long piece of straight road like this: it's an opportunity to let it all hang out without having to worry about anything else. I quickly realise why, for the kick in the pants between 8 000 and 10,500 rpm has to be felt to be believed. On the racing circuit, this experience would not have been as impressive. The power of the Matra V12 in the Ligier, phenomenal though it is, comes in much more progressively. In contrast, though, it's much more like a road car.
Summing up, the Renault provided me with another huge thrill. But since my command of the French language (in which this piece was written) has not made much progress in the two intervening days, any attempt to enlarge on my excitement would be in vain. Again, words fail me...
And the final paradox of this two car "test" is as follows: while I had anticipated it would be much more difficult, I certainly didn't expect it to make such a strong impression. I hope you'll understand. Me, well, I was lucky. I got to drive two F1 cars and now, more than ever, I am full of admiration for the men who race them as professionals. □

No turning back now. When you've got to go, you've got to go. (Photo Bernard Asset/A+P).

Two days later, a chance to swop teams and drive the Renault. This time my driving instructor was Alain Prost. In a few minutes, I was to receive the biggest kick up the bum I've ever had: between 8,000 and 10,500 revs, the power is phenomenal. (Photo Renault-Presse).





A PHOTOGRAPHIC YEAR

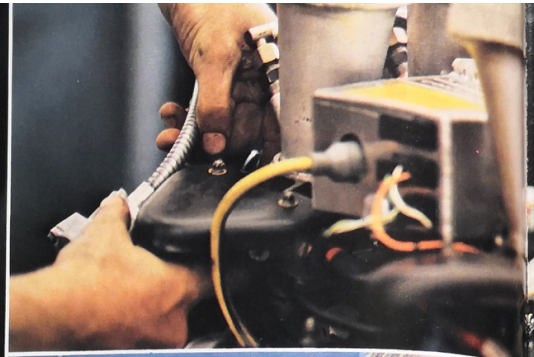
This artistic photo-montage opens our photographic review of the year. Rather than a factual review, we've opted for an æsthetic view. The reason for this is that during the year, we've often had to include factual photographs, rather than artistic shots, but we've promised ourselves to use them one day. So here they are, we hope you find them up to our usual high standard. (Photo Jean-Christophe Vincent)

RENAULT: NO CHANGE, BUT...

Renault won three races in 1981, as they had the previous year. In winning all three, Alain Prost became a superstar. René Arnoux was consistently brilliant in practice, setting pole position on four occasions, but frequently struck bad luck in the race. But the French team has already given notice that it is likely to improve on this year's score. Renault starts 1982 as clear favourites. (Photos Bernard Asset/A + P)

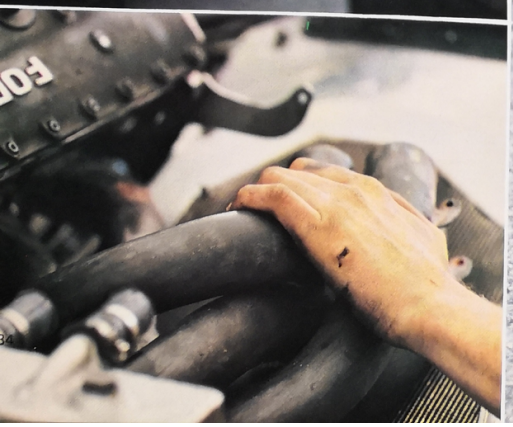
THE OTHER SIDE OF JACQUES LAFFITE

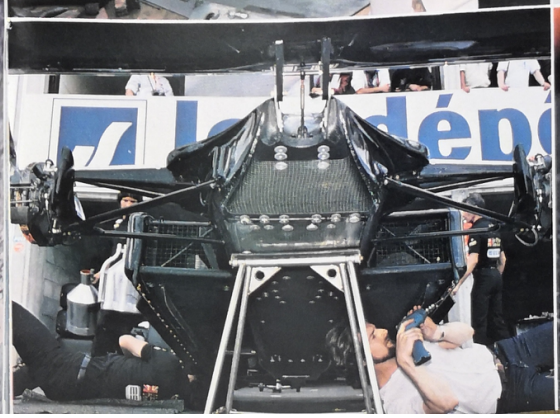
Everyone knows the happy, bouncy, jovial side of Jacques Laffite. But then there's the Laffite that no-one knows: the one that's hidden behind his full-face helmet. It's one that's creased with concentration, where the eyes burn with determination. Once again, Laffite proved this year that he's a driver to be taken seriously by his rivals. (Photo Bernard Asset/A + P)



THE MEN BEHIND THE SCENES

The unsung heros of Formula 1 are without doubt the mechanics. They frequently work late into the night, in difficult conditions. Their work is of vital importance, whether it's fixing a skirt, changing an exhaust or checking a weld. Without the faultless preparation of these high priests of technology, a World Champion is reduced to an also-ran. The tiniest detail is of the utmost importance. The final polish just before the race is simply the icing on the cake. (Photos Lionel Froissart · Bernard Asset/A + P)





ANOTHER SHADE OF BLUE

Blue is for France, for Ligier, and as from the Italian Grand Prix, it was for Osella and Jean-Pierre Jarier. It was in Italy that Osella's new car was debuted, and the attractive new blue-painted shape gave its French driver new hope. What chances of real success in' 82? (Photo Lionel Froissart)

WATER, WATER, EVERYWHERE

It was a wet season. Here, Alan Jones is seen in the rain at Montreal, the fifth Grand Prix to be affected by rain following Brazil, San Marino, France and Italy. And that doesn't include the rain drops in Germany, or Monaco's dripping tunnel which dampened the track at the start. (Photo Bernard Asset/A + P)

ALL SYSTEMS GO, BUT NO CHASSIS

This year's engineering success was Ferrari's turbocharged V6 engine. Within months of its first race, it was a winner. It was phenomenal down the straights, and when Ferrari's two talented drivers, Gilles Villeneuve and Didier Pironi, stamped on the power pedal when the lights turned to green, they usually gained at least one row on the grid, if not two. But in spite of two wins, there was a major drawback which prevented the two drivers from scoring further successes: a poor chassis. (Photos Bernard Asset/A + P)

DID CARLOS LOSE CONTROL?

Did Carlos Reutemann relax his grip on the championship? Throughout the season, the Argentine had been a consistent World Championship contender, scoring points in race after race. But did he lose control of the championship during the last two races? Poor tyres in Canada, and a wrongly set-up car at Las Vegas were enough to make the car a midfield runner, such is the competition in Formula 1 today. But the moral of the story, as far as we're concerned, is in confirming just how hard it is to judge. Maybe Carlos covered two of the hardest and most deserving races of his career. Who can say otherwise? (Photo Bernard Asset/A + P)

Surprise winner Roberto Moreno won this gigantic National Panasonic cup for his first non-F3 victory. And he's still waiting for his super-licence. (Photo Nigel Snowdon).

ALAN JONES' AUSTRALIA

Jones, Piquet, Laffite: the three stars of this "divison two" Grand Prix. Of the three, only Piquet finished; second behind compatriot Moreno. (Photo Nigel Snowdon).

During the first week of November there were two important struggles taking place in Australia. One, at the Calder circuit, was a racing confrontation involving Nelson Piquet, Alan Jones and Jacques Laffite in a Formula Pacific race. The other, less visible, was in Alan Jones's mind as he tried to decide whether he would continue to race despite an announcement that he would not. The race itself produced a straightforward but unexpected result. Jones's battle of conscience was less clearcut... and the final result was still unknown even after Laffite and Piquet had returned to Europe.

by Mike DOODSON

Grand Prix" was perhaps too ambitious a title for the Formula Pacific race (1600cc, carburetters only) which took place at Melbourne's Calder Raceway on November 8. With a lap time of just under 40 seconds, the dusty 1.6 km track would probably be rejected in Europe as too short even for a championship Formula 3 round. Yet the convenience of Calder, which is only 15 kms from a major international airport and 22 kms from the country's second most populous city, makes it an ideal venue for the full-scale world championship race which Australia hopes to run in 1982 or 1983... once the track extension has been completed.

Small though their circuit may be, the Australian welcome for Nelson Piquet and Jacques Laffite, the two "international" visitors, could not have been warmer or more enthusiastic. For despite their country's remoteness, Australians have been staying out of bed on alternate Sunday nights to watch the direct Channel 9 telecasts, complete with Murray Walker's BBC commentary, of every one of this year's world championship GPs.

Understandably, local interest focuses on Alan Jones, himself a Melbourne native, who was able to show Nelson and Jacques exactly why he is finding it so difficult to return to Europe. With its small population and sunny cli-

mate, Australia is a land of opportunity. Alan owns a small chunk of it about 100 kms north of Melbourne, at Yea in Victoria, where he raises sheep and beef on an ideally situated farm where he can shut himself away for weeks on end without having to go any further than the mail box to stay in touch with the world.

Jones, Piquet and Laffite were all taking the Grand Prix so seriously that it proved impossible for them to find the time to visit Alan on his farm. Each of them had a brand new Ralt RT4, all powered by Cosworth BDA engines, to get sorted out, and Nelson Piquet spent his first two full days in Australia at the Amaroo circuit near Sydney, the country's most densely-populated city. His car, owned by the local Ralt importer, was being run in conjunction with an identical RT4 destined for his friend and fellow countryman, 22 year old F3 sensation Roberto Moreno.

To begin with, Nelson was a bit disappointed. "I had expected to find kangaroos selling ice creams on the street corners", he said. But a trip around Sydney's beautiful harbour, with its Opera House and dozens of leafy bays, soon found him getting enthusiastic, especially as the antipodean Spring was turning into the start of summertime. Within a couple of days, using Avon tyres sent out by Brabham owner Bernie Ecclestone's IRTS organisation, Nelson had broken the Amaroo lap record (held by a much more powerful Formula 5000 car) by no less than 1.5 seconds, with young Moreno not much slower.

In anticipation not only of the requirements of the three GP stars but also of the national drivers (many of whom also had new Ralts to prepare), there was plenty of time allocated to practice at Calder. It rapidly became clear not only that the Avon tyres were quicker than the Goodyear, M & H and Dunlop (Japan) alternatives, but also that Moreno was a real "find". Unlike Jones and Piquet (both of whose teams were trying to get their cars working on non-standard "double rate" springs), he was able to do consistently quick laps, starting from pole with Jones beside him only after the practice times had been carefully re-checked.

There was no doubt, though, about the issue once the race had started. Jones, whose team had managed to find him some of the very effective Avon tyres only just before the "off", took an early lead. But after four laps of tailing the world champion, Moreno pulled out of Jones's slipstream and neatly outbraked him into the first corner. "He was driving well," Alan confessed, "but he was putting a wheel into the dirt at one corner, so I hoped he would puncture. But he didn't. I suppose that means another bloody Brazilian to give us all aggravation".

Five laps from the end, Alan pulled off the circuit, free-wheeled into the pits and climbed out of the Ralt. He was clearly angry, as he often is immediately after a race which he hasn't won. It had been possible to hear him missing gears almost from the first lap, and now he was complaining about the brakes too. *"I'm not going to bloody Macau,"* he muttered, a decision which had been part of his contract with Teddy Yip, owner of the car. His remarks were to create great tension between himself and Yip, to whom the Macau race is the most important of the year.

Piquet, too, had been in trouble with his Ralt, which was in clutch and gearbox difficulties from the start. He inherited 2nd place from Jones, although he had already been lapped by his young protégé. And Laffite, handicapped by having to run on inferior rubber, retired when his engine blew up while he was battling with some of the leading Australians.

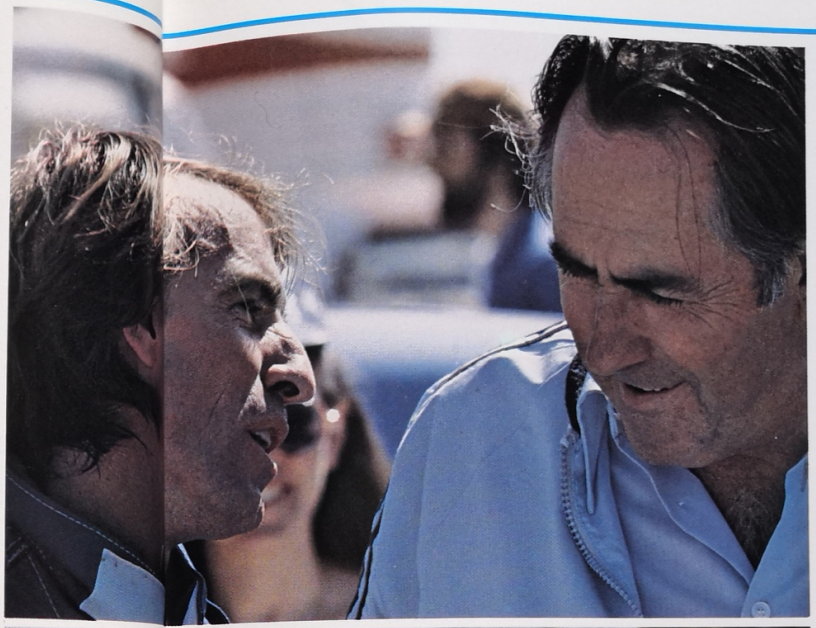
For Alan Jones, this mysterious engine problem marked the end of a long career in single-seater racing cars. Or did it ? On the Thursday after the race he was due to telephone Frank Williams with his decision on the offer that Frank had made to tempt him not to quit racing. But I spent those four days in Alan's company... and it was self-evident that the ex-champion was both busy and happy with the new life that he's built up for himself and his family in Australia. Racing was the last subject on his mind at the time.

On Monday morning, for example, he appeared at a breakfast reception to announce the new Alan Jones Driving Course which is being set up at Calder to train Victoria's notoriously accident-prone drivers how to handle their vehicles. On Monday afternoon, Alan entertained some business friends from Queensland.

There was another business meeting, with his partner Bob Jane, on Tuesday morning. Jane, who owns Calder, is an aggressive 52 year old who still races a 600 horsepower saloon car, and he is already making plans for the circuit extension which could bring a world championship race Down Under in 1983. By lunchtime, Alan had collected his Mercedes 500SEL from the railway station, obtained temporary registration papers for it, and set off for a quick trip to his farm.

As the Mercedes ate up the miles, Alan spoke about his beef animals, the breeding programme for his beloved Simmentals, his sheep and his horses. "I'm getting really excited about the farm," he admitted, "and I'm trying to buy another 400 acres. But my other business interests are going so well that there's no question of me living permanently on the farm: I shall keep my town house in Kew and work from there." We dropped in on his pub at Glenburn for a late lunch before opening up the comfortable house on the farm and climbing into his Range Rover for a tour of the "paddocks", as Australians call their fields. We saw the 500 sheep which are kept permanently indoors, then inspected the 800 animals which are raised outdoors. A kookaburra howled derision at us and the cockatoos — pests in this part of the world — swooped on to the newly sown oats. As we made our way down to the farmhouse, a couple of kangaroos broke cover and bounded away in great elegant leaps.

Alan beamed with pleasure and we swept out of the farm to visit the nearby town of Yea and to look up the



A pair of Jacks, and a pair of aces. Sir Jack Brabham, thrice World Champion, and Jacques Laffite, six GP victories, but still in quest of the world title. (Photo Nigel Snowdon).

Jones leads Piquet: it could be at Zolder or Long Beach, except that they're both driving Ralt RT4s. Alan's was entered by Teddy Yip, Nelson's by Greg Siddle, his team manager in Formula 3 days. (Photo Nigel Snowdon).

local realtor. Inevitably, the meeting took us into the local pub, where everyone regards Alan as a farmer first, not a racing driver. But over the third or fourth beer someone casually asked if he was going to give up racing. "It looks like it," grinned Alan.

The evening ended pleasantly over grilled steaks and some Argentine wine at the farmhouse with the real estate agent. It was late when the last bottle had been emptied, and some of the party woke up on Thursday with aching heads. But Alan was up early, in time to receive a phone call from a Melbourne boatyard owner who wanted to sell the American cruisers for which Alan has an agency. After an hour of (fruitful) discussion, there is no time to make another farm inspection on Alan's trail bikes, and we set off for Melbourne once more where there are already half a dozen phone calls for Alan to return.

Understandably, Alan simply did not have time to invite Piquet or Laffite to visit his farm, as he had hoped. Nelson had to catch a plane back to England for yet more tests with the Brabham-BMW, while Laffite hurried off to Sydney where he had an invitation to get his hooks into a shark.

But a few days earlier the three men had agreed to meet between practice sessions at Calder for our photographers, and once in each other's company they talked of nothing but racing, of plans for 1982. Alan formed just as important a part of the conversation as if he were still a driver. Plainly he still thought of himself as a driver... and nothing had changed when the fateful Thursday arrived.

Jones did not call his team manager until the following afternoon, Friday, by which time an agonised Williams had decided to extend the deadline even further. And when I telephoned him from England just before this issue of GPI went to press, to find out what his final decision was, I discovered that he was cruising in New South Wales in one of his boats.

Alan Jones, normally such a decisive person, is having great difficulty coming to terms with the reality of retirement. Dithering is not his normal style. When the time comes to make the final decision, he alone will make it: the trouble is that he doesn't want to make it. Having seen him in his own environment, my belief is that he will not race Formula 1 again. There is too much that is new and exciting for him in Australia for him to go back on his announced decision. But there is still a vague chance that he will change his mind... □

THE MYSTERIOUS Mr YIP

by Keith BOTSFORD

There are desperate enterprises in every sport. In America, a writer called George Plimpton has made a fat living out of going through what a top professional sportsman goes through: being sand-bagged at the mayhem called American football, tripping on trapezes, being near-gored by amateur bulls and so on. Teddy Yip's life in Formula 1 is not unlike Plimpton's — with this difference, that no matter how many times the white cars with their Chinese idiograms fail to make their mark on the sport, Teddy soldiers on in his own admirable way: unconcerned with defeat, determined to keep his name in motor racing. A genuine amateur. One of the lesser teams that gives the sport its particular character as everyone's fantasy. Just like anyone can become president — even B actors in C movies — so anyone can maintain an effort of sorts, even in Formula 1. Anyone, so long as they have the required loot.

When I saw Teddy in Hong Kong recently, his mind was exercised with getting himself a front rank driver. In this case, Carlos Reutemann. *"Do you think Carlos will drive for me?"* For Reutemann, he was willing to put up a lot of money, up front. And give him the best possible deal. Better guarantees. Money payable in advance. Even pie in the sky. Would Carlos come out of retirement to race for Teddy Yip? Here is a reported conversation with Carlos:

— "Hey, you thinking of coming back into motor racing?"

— "I don't know. Maybe yes, maybe not."

— "I thought when you packed it in you were going to retire to your estancia in Argentina and look out on the pampa all day?"

— "Yes, that is true, but what will I be doing on that estancia? I think the pampa may be boring."

Teddy is something special. If Carlos, or anyone, races for Teddy, they start with certain built-in advantages. First, Teddy's gratitude. And that is no mean thing. Teddy can be a very *grateful* man. He is also a very generous man. It is not that he would give the shirt off his back to a friend; it is that he has a lot of shirts, and one or two would never be missed. Other advantages include: a touch or oriental exoticism, a guaranteed good time in Hong Kong and Macau (which for the sexual egos of some drivers would do them no end of good), and some pretty savvy craftsmen in the engineering department, and above all a complete concentration on the driver's own ego. No competition. Just one driver. For Carlos, no Alan, no Frank Williams, no Arabs, no excuses.

And then there is Teddy himself. Good value for money at any time. If you can figure out who Teddy is. Or what he does. Or where he sprang from. Or what is real interests are. OK, you start with something: that Teddy is passionate about the sport. You have to be, to try and trundle a car and a bank roll around the world when the results are so minimal. To create your own Grand Prix in your own back yard in Macau. To want, as badly as Teddy does, to be part of the whole racing scene: even if vicariously.

Make no mistake. Teddy is no high class groupie. One distinguishes carefully between Teddy Yip, and, say, David Thieme. Teddy may flash at the gambling table and sit in Caesars Palace in a suite looking like a Hollywood harem irrepressibly womanising. But it isn't because Teddy has something to sell. Or even something to hide. It is because that is what Teddy is. He is a man without seams, all one thing. Take him or leave him. There's probably, however, a good deal of lint in his pockets.

The Yip story, which only he could ever tell in all its detail or whatever the oriental version of the Horatio Alger story of rags to riches is — and I think he's working towards telling that story — is shrouded in gorgeously inscrutable mystery. Gleanings, hints, bits and pieces here and there, but no hard facts. One night I dined with him in his apartment on Repulse Bay with an old friend whom Teddy had known for some 30 years. Meaning that the friend in question had also known Teddy for some 30 years. That's to the period when Teddy Yip was not the Teddy Yip that we know today. There was clearly a lifetime of sharp trading between the two, talk of Burma, of contracts in rice and wood in jungle, of hard times, of endless shippings to and fro, of considerable business acumen. Nothing had been forgotten. It wasn't concealed, but then nor was it exactly out in the open. Except that you knew from the talk both men had always had their eyes open for the main chance.

The present Teddy Yip is the sybarite Yip. His latest project, which he describes with the same enthusiasm as he refers to the latest girlfriend, is an anniversary dinner for the all the women he's ever known, loved, married, bedded or just tried out for size. Or who have ever known and loved him. It is a splendidly opulent notion: bringing the conquests of a long and active lifetime together in one place for a weekend of comparing notes: first class tickets for all, a tiara for each (Teddy was hesitating between gold and diamonds), big dinners, luxury surroundings and a general collective dip into the sexual history of a singular creature. Teddy thinks he'd do all right on the serial rights too, though I did say that I didn't think that *Lui* magazine was exactly the place I would want such a get-together reported. Just not high class enough for Teddy. I suggested the *Journal for Foreign Affairs.*

When Teddy talks about business, it is always in terms of a consortium.

It isn't Teddy, it's a lot of people controlling a lot of financial power. They build, they buy, they sell, they run casinos in Macau and only Yip knows what else. Teddy is part of the Hong Kong decor. If you take the ferry to Macau, his chauffeur takes you into the booking office by a back door where you interrupt all the clerks playing mahjong and find yourself, tickets in hand, without queuing or paying. I suspect it's the same on a much higher level in all of Teddy's businesses. It's who you know and whose chips you can pick up. Teddy's intent is to put Macau on the map first and put Teddy Yip on the map second. He wants to make Macau into what Hong Kong is. A short leasehold pearl for the best oyster-shucker.

For all this, the life-style of the man is surprisingly simple. His apartment on the ground floor (though he wants the penthouse) is familial, spare. Old retainers and an elderly sister. Trophies in cases. Fine fish from the great bay. Tatty furniture. An air of colonial rot. A patriarch with children left, right and centre, all presumably well-placed. Teddy ducks into the underground; he eats in ordinary restaurants. He does not, I repeat not, send to Mougins for his chef. Teddy does not need to impress anyone in Hong Kong. He is also the most frenetic, hyper-kinetic creature I've met in years. Non-stop, always buzzing. If the mateus rosé is not brought immediately to the table, Teddy frets, drums his finger on the soiled table cloth and then goes off in search of the waiter. I arrived, called, found him to be in church, and was ever afterwards picked up by his driver on the dot of the appointed hour. Punctuality being the politeness of kings, which is of course what Teddy is in his own domain. Ever impatient for results, motor racing is his pleasure. He can afford his pleasure; can he command success?

Out there in the bay, from his own windows, one can see the island where John le Carré's honourable schoolboy comes to his *denouement.* In the world where Teddy operates, intelligence and savvy are interchangeable commodities, there is a commerce in politics, and a commerce in information; Teddy uses one and the other indifferently. As motor racing is his relaxation, so 007 had his own particular ways. As Teddy says, there are people in Hong Kong who don't like him. So he packs a gun. It seems hard to believe, because Teddy is so transparently likeable. Luckily, in that complex and unreal world, more people like him than not. Street vendors, lottery ticket sellers, gamblers anonymous and not so anonymous, seekers after the pleasures of life, purveyors of commercial, building and other rites, traders in life's many commodities: they are all part of an ancient Chinese tradition, part of a confuscian continuum in which church, christening and wedding mix with casino, bordello and anything that times may demand.

As the sport becomes more anonymous, the drivers unglamorous, the politics rankerous, business dominant, technical niceties ever more complex, people like Teddy Yip grace the sport: with a little humanity, a certain modesty, a love of the game, something slightly *louche* and a capacity for pleasure and self-irony that we could all use more of. It is the genuine eccentrics, particularly those in pursuit of an apparently hopeless cause, who save the sport from uniformity and boredom.

MACAU: NO CHEERS FOR YIP

Teddy Yip desperately wanted to win "his" Macau Grand Prix, and he hadn't penny-pinched to do so. But with one third of the race over, all three of his cars were out. Although Teddy accepted it with typical good grace, there were no cheers for Yip that day. But as well as a little racing, we experienced pigs in the paddock, smiling policemen and even Goodyear-sponsored buffalos, while covering this non-championship Grand Prix in the Far East.

Bob Earl (Hayashi N°6) was the flag to flag winner at Macau, in spite of Hoshino's opposition in March N°5. Teddy Yip, owner of the hotel-casino Lisboa, had little luck. His drivers Jarier (Ralt N°3), Lees and Moreno were quickly sidelined. But the team patron didn't let it show at the post-race prize-giving. Meanwhile, for western visitors, the experience of sitting in a bamboo grand stand was something altogether novel. (Photos Bernard Asset/A + P).

Just a few yards from the entrance to the paddock was a little wooden hut. It might have been one of loos at the late lamented Rouen, so bad was the smell emanating from within. Yet here it was at Macau, a strange contradiction between two worlds, two centuries even, two ways of life. In the paddock were racing cars, some preparing to go out and fill the tight streets of Macau with the unholy din of racing engines. Behind the steering wheels would be a majority of foreigners who had flown thousands of miles to inflict this annual torture on the unfortunate inhabitants. One of whom sat in front of this miserable hut made of rotting wood. From within came the sound of snoring, the grunting and heavy breathing of someone with a bad case of catarrh. We drew close to peep inside, with the hope of catching a little local colour. It was pink, and came in the shape of two large pigs, sleeping as peacefully as two intertwined lumps of pork can sleep on a bed of straw with racing cars disturbing whatever it is that pigs dream about. We'd paid a mere 20 pence (tip included) for our taxi to the circuit, and here was our second shock: being received by a brace of pigs. The air was hot and heavy. So were the pigs. At the paddock gate, two worlds overlapped.

It was our second brush with animals in two days. On a brief trip to a predominantly rural area of the People's Republic of (nearby) China, we found ourselves close to a village. Goodyear's good friend, Bernard Cahier, seeing an apparently docile buffalo, decided to use the unfortunate beast as a vehicle for Goodyear adver-

tising in Communist China: he stuck a GO GO GOODYEAR sticker on its forehead. In doing his PR duty, Bernard risked the beast's threatening horns, a feat of bravery rivalled only by the time he hit an Italian policeman at Monza this year.

But here we were at the pig-sty to start our report of the Macau Grand Prix. It was a rare moment. The previous evening we'd been in Hong Kong, a mere 45 minutes away by hydrofoil. This distant city is considerably more Westernised than one expects. High up in Teddy Yip's 16th floor suite in the Hilton Hotel on the lip of land jutting out into the sea seperating Hong Kong and Kowloon, we watched the incessant procession of ferries, cargo boats, junks and hovercraft.

Our host seemed nervous and upset as he welcomed us, oblivious of the familiar maritime traffic jam outside his window. Teddy is by nature a man on the move. But now his wrinkled brow and twitchy moustache accentuated his annoyance. And it didn't abate. He'd just arrived from Australia, where Alan Jones had lit the touchpaper to his wrath. Fire laps from the end, Alan was second behind Mironi. And then he stopped because he said the gearbox and engine weren't working properly. But when the mechanics restarted the engine to drive the car back to the paddock, it worked perfectly!

"The truth is," continued Teddy without pausing for breath, "Jones didn't want to finish second to Mironi in front of his home crowd. Anyway, he won't race for me here at Macau, and I'm not going to pay him what I promised him for racing in Australia. I'd prefer to give the money to charity."

But who was this Mironi? Certainly nothing to do with a Ferrari driver of a similar (but not identical) name. It was Yip's special way of pronouncing Moreno. "Mironi drove a fantastic race at Calder. He's going to drive for me at Macau." So, much to his delight, the young Brazilian had found himself a seat in the Theodore Racing team for the Macau GP. There he joined teammates Jean-Pierre Jarier and Geoff Lees.

Jarier was the only reasonably permanent Formula 1 driver to race in Macau. The Frenchman was delighted to have made the trip to Hong Kong — doubly so because he'd discovered the largest range of portable telephones he'd ever come across. Formula 2 champion Geoff Lees was hoping to make it a Macau hat-trick having won the round-the-houses race for the previous two years. Teddy Yip's team seemed far and away the strongest and best equipped. Sid Taylor and Jo Ramirez were both on hand to oversee the preparations and running of the Ralt RT4s.

Once we'd negotiated the pigs' wooden hut, we came across Geoff Lees day dreaming as he watched the first heat of the motor-cycle GP from the bamboo press stand. Directly opposite was the China sea, muddy and still at this point. The bike men began their race. "They're either very brave," commented Geoff, "or completely mad. It's dangerous enough in a car; I hate to think what it's like on a motor-cycle."

The Macau circuit runs through the streets of the town. It's rather like Monaco, or Pau, or even Long Beach... but it's chiefly Macau. Its greatest feature is a long straight beside the sea, certainly worth a visit.

But that isn't easy. The local police are very very strict. They may not wear kimonos but they reveal every other oriental characteristic, particularly exquisite charm. The more they wish to prevent you from doing something, the bigger grows their smile. At their most intransigent, they are almost laughing. Believe me, it's much more effective crowd control than a blue beret and a police dog. How can you force your way past or argue with such friendly people?

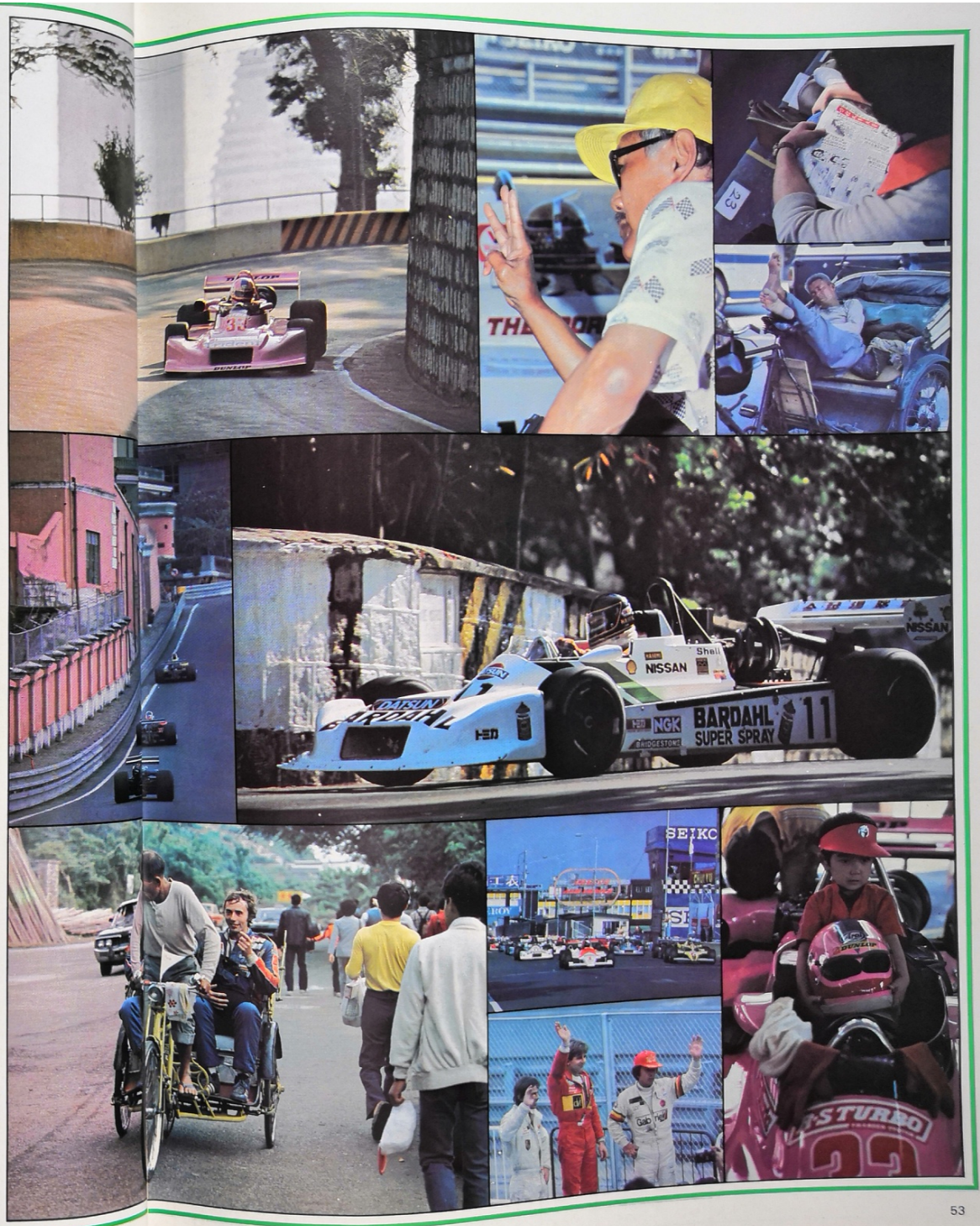
Geoff Lees failed in his hat-trick. On the third lap, the banged into the guardrails. As the only driver on Bridgestone tyres, he had the race in his pocket if only he could finish. Jarier had gone out even earlier when a valve spring broke on the first lap. All those thousands of miles for one lap: infuriating, but for those telephones!

And shortly afterwards, "Mironi" retired Teddy Yip's third car. In fact the Brazilian hadn't had much of a chance since he crashed his Ralt in practice. An old replacement March wasn't really up to the job, and on the tenth lap, "Mironi" retired when the exhaust broke.

Californian Bob Earl led the race from start to finish in a Hayashi-Toyota designed by Masao Ono of Japan. He's well-known for his involvement in the Maki F1 car, and the Dome seen principally in the Le Mans 24 Hours. Earl's chief rival was Masahiro Hasemi (March) who was twice delayed by back-markers.

Teddy Yip greeted the winner with good grace, congratulating him at the prize-giving dinner, and hiding his own disappointment with jokes. For many, it was the end of a charming race-week. For some, like Jabby Crombac of Sport-Auto in France, it had been a frugal week. With no French bread available, he was in danger of dying of hunger!

E. B.

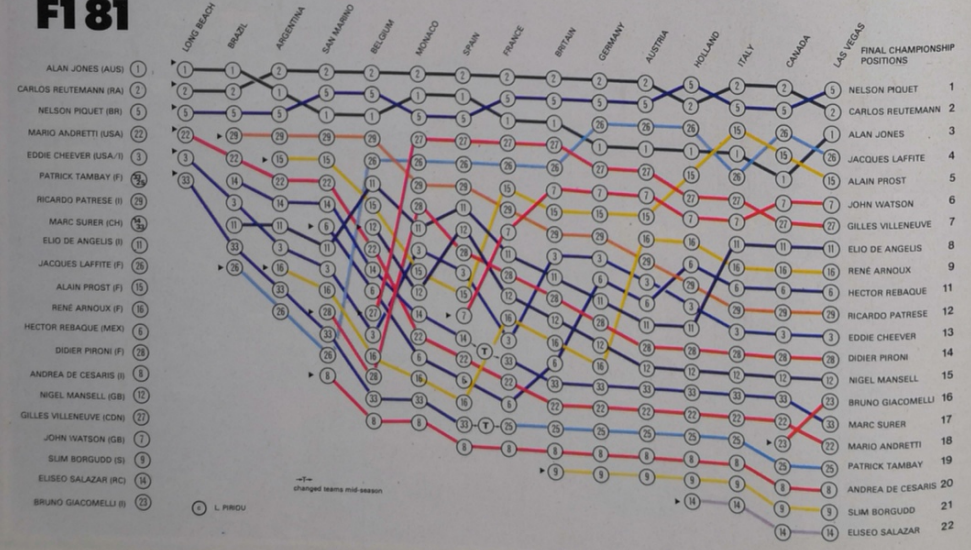


A rickshaw is a useful way of getting around. Geoff Lees and Jean-Pierre Jarier (hidden behind the driver) get a local lift. In the Macau street race, Lees and Earl started from the front row, but the Englishman soon crashed heavily. The Californian twice resisted strong challenges from Hasemi (March N° 11). Amongst the many other Japanese competitors was Masatomo Sumizu (March N° 33). The locals enjoyed tremendous value for money: eleven races in two days, including a Group Five event, won by Manfred Winkelhock's BMW 320 which he took over when Hans Stuck was injured in the Kyalami 1 000 kms race. (Photos Bernard Asset/A + P) - Jutta Fausel).

STATISTICS

HOW THE CHAMPIONSHIP DEVELOPED

F1 81



F1 81 — Order at half-distance

	Long Beach	Brazil	Argentina	San Marino	Belgium	Monaco	Spain	France	Britain	Germany	Austria	Holland	Italy	Canada	Las Vegas	Points for first six	Number of scores
1 Piquet	4	—	9	6	—	9	2	9	—	3	4	4	3	2	4	59	12
2 Jones	9	6	2	—	—	6	—	—	—	9	3	6	6	—	9	56	9
3 Reutemann	6	9	4	3	9	—	6	2	4	4	2	—	—	—	1	50	11
4 Prost	—	—	3	—	—	1	—	6	—	6	—	9	9	3	3	40	8
5 Laffite	1	—	—	—	6	3	3	—	—	2	6	—	—	9	6	36	8
6 Watson	—	2	—	—	3	2	4	4	6	—	1	3	—	4	—	29	9
7 Arnoux	—	—	1	—	—	—	—	—	3	9	—	9	—	—	—	22	4
Villeneuve	—	—	—	—	2	4	9	1	—	—	—	—	—	6	—	22	5
9 Pironi	3	—	—	9	—	—	—	—	—	—	—	—	2	—	—	14	3
10 Rebaque	—	—	6	2	—	—	—	—	1	1	—	2	—	—	—	12	5
11 Patrese	—	4	—	4	—	—	—	—	2	—	—	—	—	—	—	10	3
12 Mansell	—	—	—	—	4	—	—	—	—	—	—	—	—	—	2	6	2
De Angelis	—	3	—	—	1	—	1	—	—	—	—	1	—	—	—	6	4
14 Giacomelli	—	—	—	—	—	—	—	—	—	—	—	—	4	1	—	5	2
15 Andretti	—	—	—	—	—	—	—	—	3	—	—	—	1	—	—	4	2
16 Cheever	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1
17 Surer	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
De Cesaris	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1

F1 81 — Fastest laps

	Long Beach	Brazil	Argentina	San Marino	Belgium	Monaco	Spain	France	Britain	Germany	Austria	Holland	Italy	Canada	Las Vegas	Points for first six	Number of scores
1 Jones	9	2	2	—	6	9	9	2	—	9	6	9	6	—	1	70	12
2 Piquet	1	4	9	4	—	6	—	6	3	6	4	6	4	—	—	53	11
3 Reutemann	6	3	6	—	9	4	3	—	1	3	—	3	9	4	—	51	11
4 Prost	—	—	3	—	—	—	—	—	9	6	4	2	4	3	1	3	35	9
5 Laffite	—	6	—	—	4	—	2	—	—	—	9	2	—	6	2	31	7
6 Watson	—	—	—	6	1	1	—	4	4	—	1	—	—	9	4	30	8
7 Arnoux	—	—	1	—	—	—	—	—	3	9	—	3	—	2	—	18	5
8 Villeneuve	—	—	—	9	—	3	4	—	—	—	—	—	—	—	—	16	3
9 Rebaque	—	—	4	2	3	—	—	—	2	2	—	1	—	—	—	14	6
10 Pironi	—	—	—	3	—	—	1	—	—	—	—	—	—	—	9	13	3
11 Surer	—	9	—	—	—	—	—	—	—	—	—	—	—	2	—	11	2
12 De Cesaris	—	—	—	—	—	—	—	1	—	—	—	—	—	3	6	10	3
13 Tambay	3	—	—	—	—	6	—	—	—	—	—	—	—	—	—	9	2
14 Patrese	4	—	—	1	—	2	—	—	—	—	—	—	—	—	—	7	3
15 Andretti	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1
Cheever	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	2	1
17 Salazar	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	1
Giacomelli	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1

F1 81 — Practice

	Long Beach	Brazil	Argentina	San Marino	Belgium	Monaco	Spain	France	Britain	Germany	Austria	Holland	Italy	Canada	Las Vegas	Points for first six	Number of scores
Reutemann	4	6	3	6	9	3	4	—	—	4	2	2	6	6	9	64	13
Piquet	3	9	9	2	6	9	—	3	4	1	—	4	1	9	3	63	13
Prost	—	2	6	3	—	—	2	4	6	9	6	9	4	3	2	56	12
Arnoux	—	—	2	4	—	—	—	9	9	6	9	6	9	—	—	54	8
Jones	6	4	4	—	1	—	6	—	—	3	1	3	2	4	6	40	11
Villeneuve	2	—	—	9	—	6	—	—	—	—	4	—	—	—	—	25	5
Patrese	9	3	—	—	3	2	—	—	—	—	—	—	—	—	—	17	4
Laffite	—	—	—	—	—	—	—	9	1	—	—	3	1	3	—	17	5
Watson	—	—	—	2	—	3	6	2	—	—	—	—	—	—	—	13	4
Pironi	—	—	—	—	2	—	3	6	2	—	—	—	—	—	—	10	4
Mansell	—	—	—	—	1	4	—	—	—	3	2	—	—	—	—	6	2
De Cesaris	—	—	—	—	—	—	4	—	—	—	—	—	—	2	—	3	2
Giacomelli	—	—	—	—	—	—	—	2	1	—	—	—	—	—	—	2	2
Andretti	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	1	1
Rebaque	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	2
Andretti	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	1
De Angelis	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Tambay	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	1	1

F1 81 — Constructors Practice

	Long Beach	Brazil	Argentina	San Marino	Belgium	Monaco	Spain	France	Britain	Germany	Austria	Holland	Italy	Canada	Las Vegas	Total
1 Renault	—	2	8	7	—	—	2	13	15	15	15	15	13	3	2	110
2 Williams	10	10	7	6	10	3	10	—	—	7	3	5	8	10	15	104
3 Brabham	3	9	10	2	6	9	—	3	4	1	—	4	1	10	3	65
4 Ferrari	2	—	—	10	4	6	—	—	3	2	4	—	—	—	4	35
5 Talbot Ligier	—	—	—	—	—	—	9	1	—	—	3	1	3	—	1	18
6 Arrows	9	3	—	—	3	2	—	—	—	—	—	—	—	—	—	17
7 McLaren	—	—	—	—	2	—	3	8	3	—	—	—	—	—	—	16
8 Lotus	—	—	—	—	—	5	—	—	—	—	—	—	—	2	—	7
9 Alfa Romeo	1	1	—	—	—	—	1	—	—	—	—	—	—	—	—	3

F1 81 — Constructors Order at half-distance

	Long Beach	Brazil	Argentina	San Marino	Belgium	Monaco	Spain	France	Britain	Germany	Austria	Holland	Italy	Canada	Las Vegas	Total
1 Williams	15	15	6	3	9	6	6	2	4	13	5	6	6	—	10	106
2 Brabham	4	—	15	8	—	9	2	9	1	4	4	6	3	2	4	71
3 Renault	—	—	4	—	—	1	—	9	9	6	9	9	9	3	3	62
4 Ferrari	3	—	—	9	2	4	9	1	—	—	—	—	2	6	—	36
Talbot Ligier	1	—	—	—	6	3	3	—	—	2	6	—	—	9	6	36
6 McLaren	—	2	—	1	3	2	4	4	6	—	1	3	—	4	—	30
7 Lotus	—	3	—	—	5	—	1	—	—	—	—	1	—	—	2	12
8 Arrows	—	4	—	4	—	—	—	—	2	—	—	—	—	—	—	10
9 Alfa Romeo	—	—	—	—	—	—	—	—	3	—	—	—	5	1	—	9
10 Tyrrell	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
11 Ensign	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1

by Louis Jallerat

F1 81 — Constructors Championship

	Long Beach	Brazil	Argentina	San Marino	Belgium	Monaco	Spain	France	Britain	Germany	Austria	Holland	Italy	Canada	Las Vegas	Total
1 Williams	15	15	9	4	9	6	3	—	6	—	5	4	10	—	9	95
2 Brabham	4	—	9	12	—	—	—	4	2	12	4	9	1	2	2	61
3 Renault	—	—	6	—	—	—	—	12	—	6	6	9	9	—	6	54
4 Talbot Ligier	—	1	—	—	6	4	6	—	4	4	9	—	—	9	1	44
5 Ferrari	—	—	—	2	3	12	9	2	—	—	—	—	2	4	—	34
6 McLaren	—	—	1	—	—	4	6	9	1	1	—	—	—	6	—	28
7 Lotus	—	2	1	—	6	—	3	1	—	—	—	2	3	1	3	22
8 Arrows	—	4	—	6	—	—	—	—	—	—	—	—	—	—	—	10
Tyrrell	2	—	—	—	1	2	—	—	3	2	—	—	—	—	—	10
Alfa Romeo	3	—	—	—	—	—	—	—	—	—	—	—	—	3	4	10
11 Ensign	—	3	—	—	—	1	—	—	—	—	—	—	1	—	—	5
12 Theodore	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
ATS	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1

THEIR 1981 SEASON

PARMALAT BRABHAM

Gordon Murray has finally reached the peak of his profession. The Murray-designed Brabham BT49, in its second season of competition, was consistently competitive throughout the season. At virtually no point in the season did the Brabham team begin to fall behind, unlike most of its competitors.

Murray introduced hydro-pneumatic suspension, exploiting the regulations to make up for the ban on skirts. The system first appeared on a Brabham during Long Beach practice, but was first used in the Brazilian and Argentine Grands Prix. On both occasions, the Brabhams showed that they were head and shoulders above the competition. Piquet failed to win in Brazil because he chose to start on

slicks expecting the rain to stop, but it didn't. Instead he took his revenge at Buenos Aires, where he utterly dominated the race.

Within a couple more races, everyone had hydro-pneumatic suspension systems, and while the Brabham BT49 no longer dominated races, it was still competitive with other front runners. At this point of the season, it was Piquet himself who cost the team points, crashing with Jones in Belgium, going off into the barrier at Monaco when leading, and finally going off the road in Spain. In three races, he made three mistakes.

But from then on, Nelson made good use of the best material available to him. Despite some problems, the change-over to Goodyear tyres affected Brabham less than it did Williams. Piquet was leading at Dijon when a shower caused the race to be stopped. He was the fastest man on the track at Silverstone until a tyre burst, causing the car to crash heavily. But Nelson's luck turned in Germany, for even though he wasn't the most competitive driver on the track that day, he inherited the lead which he held to the end, scoring a valuable nine points which elevated him to the role of serious championship contender.

He paced himself well in both Austria and Holland, prefering a steady rhythm rather than a race-leading role. He had rotten luck at Monza when his engine blew up on the very last lap, robbing him of a certain third place.

Nelson drove his best race of the year in Canada, even though a lowly fifth place might not seem anything special. He never gave up during the race, trying to salvage just a couple of points, despite the obvious handicap of Goodyears in relation to the much more competitive Michelins. His determination came to the fore again in Las Vegas where he again drove a brave race despite suffering physically from a very painful neck, yet struggled on to win the two points that were enough to win him the World Championship crown.

Gordon Murray is convinced that, with a stronger number two than Hector Rebaque, Nelson would have won the World Championship somewhat easier. In spite of his efforts and showing greater promise than in the past, the little Mexican was never a competitive partner for Piquet against the strong pairing of Jones and Reutemann.

TAG WILLIAMS

For the second year running, the Williams team won the Constructors Cup, but failed to win the driver's title. The margin wasn't great, Reutemann being one point behind Piquet, and Jones only four points behind the Brazilian. Both drivers obviously had had a chance of winning the series. But while Reutemann and Jones obviously did all they could to win the title, one wonders if the same can be said for their team. As the last few races were run, it became clear that Reutemann held the better chance of winning the driver's title, but the Williams team continued to favour Jones at Reutemann's expense. In no way is it being suggested that Reutemann suffered materially, but there was little evidence that he received much moral support. Carlos frequently spoke of not feeling part of his own team.

Of course, it was at the Brazilian Grand Prix that the Williams team's attitude was formed. Reutemann had led the race from the start, but when told to allow Jones to pass, the Argentine chose to ignore the terms of his contract. Carlos remained in the lead to the flag, taking no notice of the pit boards hung out to him. After the race, Jones showed his anger at Carlos's behaviour, but Frank and other team personnel hid their immediate feelings. It was only later in the season that their feelings towards Reutemann became apparent. Everyone was very much behind Jones, but much less so behind Reutemann. Was this the best way to win the World Championship? Yes, if Jones had had more success, but as it turned out, it wasn't the ideal way, and neither driver won the title. Reutemann tried to overcome this moral setback, but failed to remain bouyant towards the end of the season. No one in the team appeared to be upset by this loss of form.

But generally speaking, even though the Williams team's personnel attitude may have appeared surprising at times, its professional ability was never in doubt. The Williams FW07s had a superb season. Alan Jones started and finished the season on tremendous form. But in between, bad luck and a couple of driver errors (at Imola and Jarama) cost him wins. Alan amply proved that he deserved to win, particularly at Monaco and Hockenheim where a baffling fuel feed problem intervened, although this was ultimately sort out. Alan announced that he would retire after the Italian Grand Prix, but the way he drove both in Canada and at Las Vegas gave rise to considerable doubt. Jones was as competitive as ever, and certainly didn't look like a retiring racing driver. Reutemann didn't win the title, but he did put his mark on the first half of the season. Furthermore, he set a fantastic record, for by winning the Belgian Grand Prix, he had scored points for the 15th consecutive race, a feat never before equalled. The second half of the season was a lot less fruitful. There was the accident with Laffite at at Zandvoort, and a total lack of success in the last two races of the season. The reasons for this lack of success are no longer of importance, it's the result that counts, and the result was that those reasons cost him the title.

TALBOT GITANES

The French team made the most spectacular progress and marked comeback of the season. By the end of the first quarter of the season, following the San Marino Grand Prix, Jacques Laffite had a single measly point to his credit, from when he scraped home in sixth place in the Brazilian Grand Prix. Arriving in Las Vegas a few months later, Jacques was one of three possible World Champions. Who would have dared predict that, for after practice in Argentina, Laffite was only 21st fastest? But this record isn't an example of the Ligier team's inconsistency, but more proof of the team's ability. One has to remember that the task was a difficult one at the beginning of the season. There was a new car to sort out, the JS 17, fitted with a new engine, Matra's V12 being pressed back into service after two seasons' absence, new Michelin tyres, and a single driver. Jean-Pierre Jabouille was still recovering from his accident in Canada at the end of the 1980 season, and didn't drive for the first two races. Jarier was called in to take his place. Added to these problem was a political one. The team was among those that failed to take full advantage of the regulations, prefering to remain on what they called the legal side of the rules. Consequently, they found themselves rather behind in development of suspension systems.

Those are the reasons for the Ligier team's disastrous first half season. But during the rest of the season, there were a number of human problems to be solved. Jabouille failed to recover sufficiently from his accident, so a decision had to made regarding his future within the team. Guy Ligier succeeded in convincing Jean-Pierre to end his driving career and to take up a new position as technical advisor. Patrick Tambay took Jabouille's place in the second Ligier-Matra. But following this personnel change came another, one that was perhaps even more important in terms of the internal organisation of the team. Guy Ligier dispensed with the services of Gerard Ducarouge after the British GP, promoting Jabouille to technical director of the team, and delegating

other positions within the team to an organisational committee.

In spite of this turbulence, Jacques Laffite picked up some excellent results. The car was reliable which enabled him to boost his points score considerably mid-season. Jean-Pierre Jabouille's technical decisions regarding tyres and skirts at the Austrian GP proved to be a winning one, allowing the driver and team to taste the spoils of victory for the first time in over a year. A few weeks later, Laffite repeated the performance with a faultless drive in the Canadian rain. This second win put him into contention to win the title, but it went to Piquet instead.

Patrick Tambay was very much in Laffite's shadow, but undertook the role of second driver with loyalty. It was only from the Dutch GP onwards that he had the same spec car as Laffite. Unfortunately, a lot of bad luck prevented him from using it to good advantage.

RENAULT ELF

Looking back on the season, the Renault team might well be torn between satisfaction and frustration. The team members may feel satisfaction because many of their problems have been overcome this season, and the team is now of a very high standard on most fronts. But they may also feel frustrated because Prost was only seven points behind the World Champion at the end of the season. Just one more win, and the Frenchmen would have won the World Championship.

That extra win was often within their grasp. At Silverstone, for example, Prost and Arnoux dominated the event before being let down by a faulty batch of valves. Again, in Austria, a broken suspension rocker cost Prost possible victory. And in Spain, his Renault was faster the Villeneuve's winning Ferrari when Alain went off the track.

But when the season is analysed, two elements in particular cost the Renault team dearly. Prost and Arnoux had a disastrous start to the season, frequently becoming involved in startline shunts. After the Spanish GP, almost half-season, Prost had only four points in the championship. He appeared to have inherited his predecessor Jean-Pierre Jabouille's incredible bad luck.

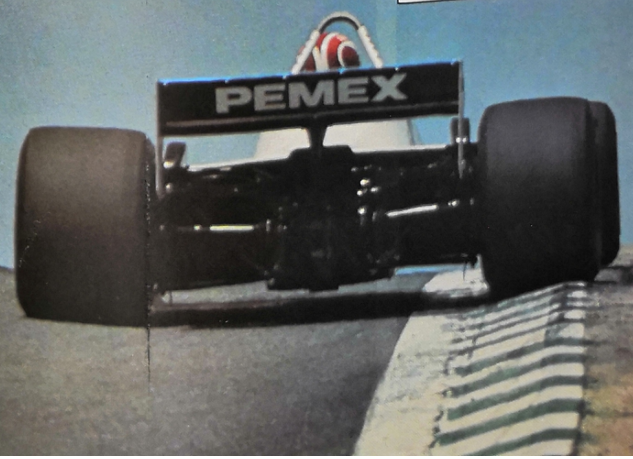
Apart from these various race incidents, Gerard Larrousse is mindful of the considerable problems encountered by introducing the new RE30 in midseason. It was some weeks before it was fully, but effectively, competitive.

But from the Spanish GP, and certainly the French, the

Renault team was a front runner, to the extent that Prost won at Dijon. But the subsequent races were fraught with problems. For three races running, Britain, Germany and Austria, the team dominated practice and led the race, only to lose almost certain victory. Prost put an end to this run of bad luck with victory in Holland and Italy.

So what have Renault got to show for this season? In terms of performances, the team was brilliant, taking pole position six times running between the French and Italian GPs. Furthermore, the normal turbo handicap on tight circuits and in the wet has been considerably reduced. Prost proved that by leading in Canada, on a track that wasn't only tight but also wet. The RE30 now embodies Gerard Larrousse's aims: it is competitive on all kinds of circuit.

On the driver front, Alain Prost has boosted his already considerable reputation to the extent that he's considered the best of the Frenchmen, and some say, the best in the world. His performances have meant that Rene Arnoux has been somewhat overshadowed. Arnoux had a psychologically difficult start to the season, after which he had particulary bad luck, for which he couldn't be blamed. In view of the 1981 form, the Renault team must now be considered favourites for 1982. It's a heavy responsibility, but Gerard Larrousse and his men hope to fulfil it.



FERRARI SEFAC

Should one congratulate the Scuderia Ferrari on their high spots, or criticise them for their rather more frequent low spots? Because the Ferrari team spent most of the season varying between the best and the worst. The high spots were naturally Gilles Villeneuve's fantastic wins in Monaco and Spain. They were, after all, a considerable surprise for two reasons. The first was that a turbocharged engine won on two twisty circuits (especially Monaco) where turbocharged engines are meant to be handicapped. The second reason was that the Italian team was still learning the art of turbo-

charging. Ferrari's 126C was new at the start of the season, although it was competitive from the first race at Long Beach.

The Scuderia had succeeded in quickly sorting out its V6 turbo. From the start, it proved to be torquey and reliable. Villeneuve and Pironi would frequently set good practice times following a quick tweak of the turbo boost button. As both drivers, particularly the Canadian, were experts at lightning starts, they would frequently be found in the first six on the first lap.

Unfortunately, this superb engine was let down by a poor chassis. The road-holding of the 126C was very mediocre which more than disappointed the drivers and embarrassed the team's engineers. This was to such an extent that the team hired ex-Fittipaldi chassis wizard Harvey Postlethwaite to take charge of the chassis department. We shall have to wait until 1982 before we see the fruits of his work.

Villeneuve and Pironi have both had good drives in 1981, but generally speaking have been frustrated. There's no doubt that they'll be hoping for better in 1982, and if they get it, both drivers are capable of running at the front consistently.

MARLBORO ALFA ROMEO

In our view, this was one of the biggest disappointments of the year, even though the season ended on an optimistic note. The team ended on a similar note at the end of 1980. Bruno Giacomelli dominated the final race of the season at Watkins Glen before retiring with an electrical fault. But the Italian team had a lack-lustre year, in spite of Mario Andretti's presence.

Rather like Ferrari, the Milan-based team had an excellent engine but a mediocre chassis. However, it must be admitted that the 179 wasn't a new car at the start of the season, and when modified, it wasn't a great deal better and even caused a certain amount of confusion. After an encouraging start at Long Beach, the team receded into the background. It wasn't until Gerard Ducarouge, sacked by Ligier, arrived to help the team that things improved. There was an immediate upturn in the team's fortunes at Zandvoort, two weeks after Ducarouge had joined, and this continued for the rest of the season. Ducarouge concentrated on aerodynamic improvements to the 179. Bruno Giacomelli proved that some improvement had been made by finishing in the first three at Las Vegas, despite a spin. Gerard Ducarouge could continue Alfa's improvement in 1982.

MARLBORO McLAREN

The re-organisation of the McLaren team bore fruit. Ron Dennis and his designer John Barnard succeeded in putting the team back on the map as a competitive team. John Watson's win at the British GP marked the team's revival.

The Barnard-designed MP4 is considered by many to be the Formula 1 car of the year. It's a pretty-looking car, very simple and with clean aerodynamics. The monocoque is made entirely of carbon fibre, a costly operation but which has nevertheless proved to be both stiff and strong.

Watson demonstrated the car's competitivity on a number of occasions. But according to some people qualified to comment, Barnard still doesn't make full use of ground effect, unlike Patrick Head and Gordon Murray, which means the car isn't of the highest standard. But 1981 was the restructured team's first year, and there were a lot of new elements. With Niki Lauda's technical and testing talent, plus Watson's natural ability, the McLaren team will be an interesting outsider next season. Andrea de Cesaris, who crashed on a number occasions, has lost his drive with the team.

JOHN PLAYER TEAM LOTUS

This was no doubt one of the most disappointing seasons for the Lotus team, who still seemed in search of new inspiration. Colin Chapman hoped he'd found the answer in the revolutionary Lotus 88 with its twin chassis and two suspension systems. But the car never raced. It was banned from each of the first three Grands Prix, and when it reappeared at the British Grand Prix under the RAC's protective umbrella, FISA stepped in and banned it again.

Meanwhile, Chapman had improvised by building the Lotus 87 from the interior chassis of the 88. This manœuvrable little car proved to be particulary suited to twisty circuits like Monaco, Jarama and Montreal, but was eclipsed on faster tracks despite the drivers' efforts.

De Angelis had an exceptional season, in that he never gave up, despite a lack of success and the feeling that Mansell was favoured more than he was. Mansell was a revelation, having a number of excellent races, including his first visit to the rostrum in Belgium.

RAGNO BETA ARROWS

Arrows, like Alfa Romeo, was a great disappointment in 1981. The team seemed to have finally made the grade after the first few races. Dave Wass had succeeded Tony Southgate as designer for the team, and his modifications to the A3 appeared to have been in the right direction. Riccardo Patrese set pole position time at Long Beach and led the race in front of the two Williams before retiring. This form was confirmed at both Rio and Imola where Patrese finished third and second. The Italian might have won at Monaco but for his gearbox breaking.

But then the team began to lose ground in relation to the competition, much to Patrese's alarm. The adoption of Pirelli's tyres didn't help matters. By the end of the season, the team was no better than it had been at the end of the previous year. Patrese perhaps lost less credibility in the team's decline than others. Siegfried Stohr is unlikely to be seen in Formula 1 again, and Jacques Villeneuve had an equally hard time at the end of the season.

TYRRELL

Big Ken is still trying to recapture the former glory of the days when Stewart won his titles, but as the years go by, those days seem more and more remote. The team's new O11 made its debut at the British GP, and although it was stiffer than the old 010, it wasn't a greater deal better overall. Even so, Eddie Cheever did well to score World Championship points on five occasions. Michele Alboreto made a promising Formula 1 debut and will probably stay with Tyrrell next year.

ENSIGN

There were three high spots for Mo Nunn's team this year: the fourth place in Brazil and sixth at Monaco for Marc Surer, and Eliseo Salazar's sixth place in the Dutch GP after Surer had left to join Theodore. So Mo's hard-pressed little team was instrumental in two new drivers scoring their first points. That, in itself, was an achievement considering the lack of finance which allowed for virtually no development throughout the year. Salazar was thought of as an untalented renta-driver at March, but demonstrated his true potential at Ensign.

DENIM OSELLA

The team's FA1B was old, heavy and slow, but even so, poor Beppe Gabbiani had to drive it right the way through the season to Las Vegas. Rather as Ducarouge's arrival at Alfa Romeo dragged that team from the doldrums, so Jean-Pierre Jarier had the same effect on Osella, qualifying the old FA1B at the British Grand Prix for its best start of the season.

The attractive FA1C was an enormous improvement on the previous car. Once it had been set up, it appeared to have real potential, to the extent that the ever-optimistic Jarier reckoned he could have qualified in the first eight at Las Vegas. Jarier's arrival within Enzo Osella's team also resulted in Michelin's increased interest and help.

THEODORE RACING

Teddy Yip returned to Formula 1 as a constructor in his own right. With Tony Southgate as designer, and Patrick Tambay as driver, the low budget team arrived at Long Beach with a car that was barely completed, yet went out and scored its first point in its first race. The form was unfortunately not maintained, partially due to a lack of money, and partially due to Goodyear's arrival on the scene, which meant that some teams had a tyre advantage, while others, such as Theodore, had the disadvantage of using the undeveloped new Avons. Tambay left to join Ligier mid-season, being replaced by Surer who never scored the same results for the reasons already mentioned.

ATS WHEELS

Once that tough but efficient team manager Alastair Caldwell had joined forces mid-season with the team's talented designer, Herve Guilpin, some progress was made. The team's driver Slim Borgudd was a Formula 1 debutant, but he did his best, and his sixth place at Silverstone proved that he was worthy of his seat.

MARCH GRAND PRIX

March's initial reappearance in Grand Prix racing was disastrous, principally due to faulty material. But once John Macdonald had been limited to one car, and had hired Adrian Reynard to take over the fieldwork from Robin Herd, considerable progress was made. The car suffered badly from poor reliability, but Daly had a number of good races, including Italy and Canada, where, thanks to his wet weather driving, he was lying seventh in the early stages.

CANDY TOLEMAN

After winning the Formula 2 championship, Toleman made the expensive and risky move to Formula 1. They didn't chose the easiest way of going about it, having a new car, new engine (Brian Hart's turbocharged 420R engine) and Pirelli's tyres. The year's record reflects the difficulties: Henton and Warwick qualified once each, although Henton managed to finish his race in Italy.

FITTIPALDI

With no financial support, it is hard for anyone to run a Formula 1 team, and the former World Champion found out just how difficult in 1981. The cars had little more than a routine service between races, so it was remarkable that Rosberg qualified for Las Vegas. Serra had a very tough apprenticeship in the world of Grand Prix racing. But now Postlethwaite has left, Warr has left, and Rosberg is also on his way, the future may be even more difficult than the past for Emerson.

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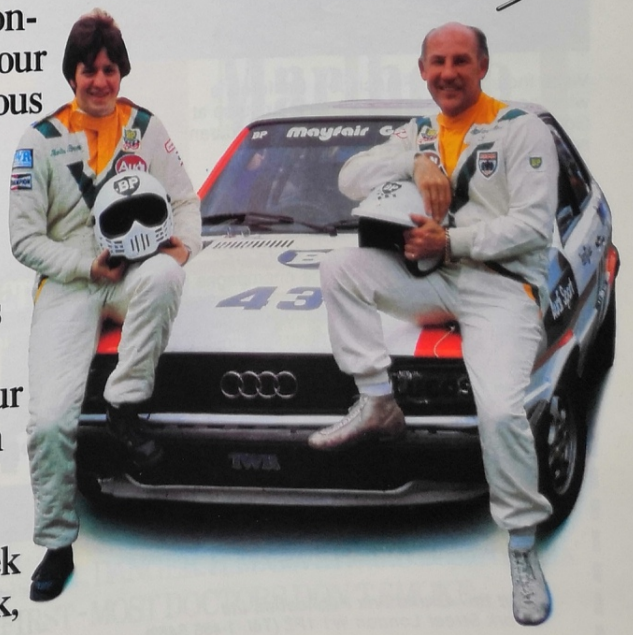

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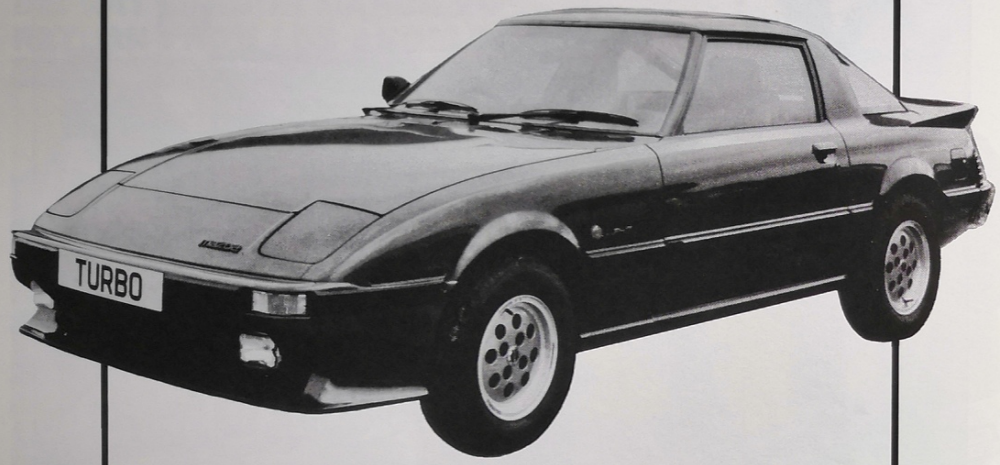

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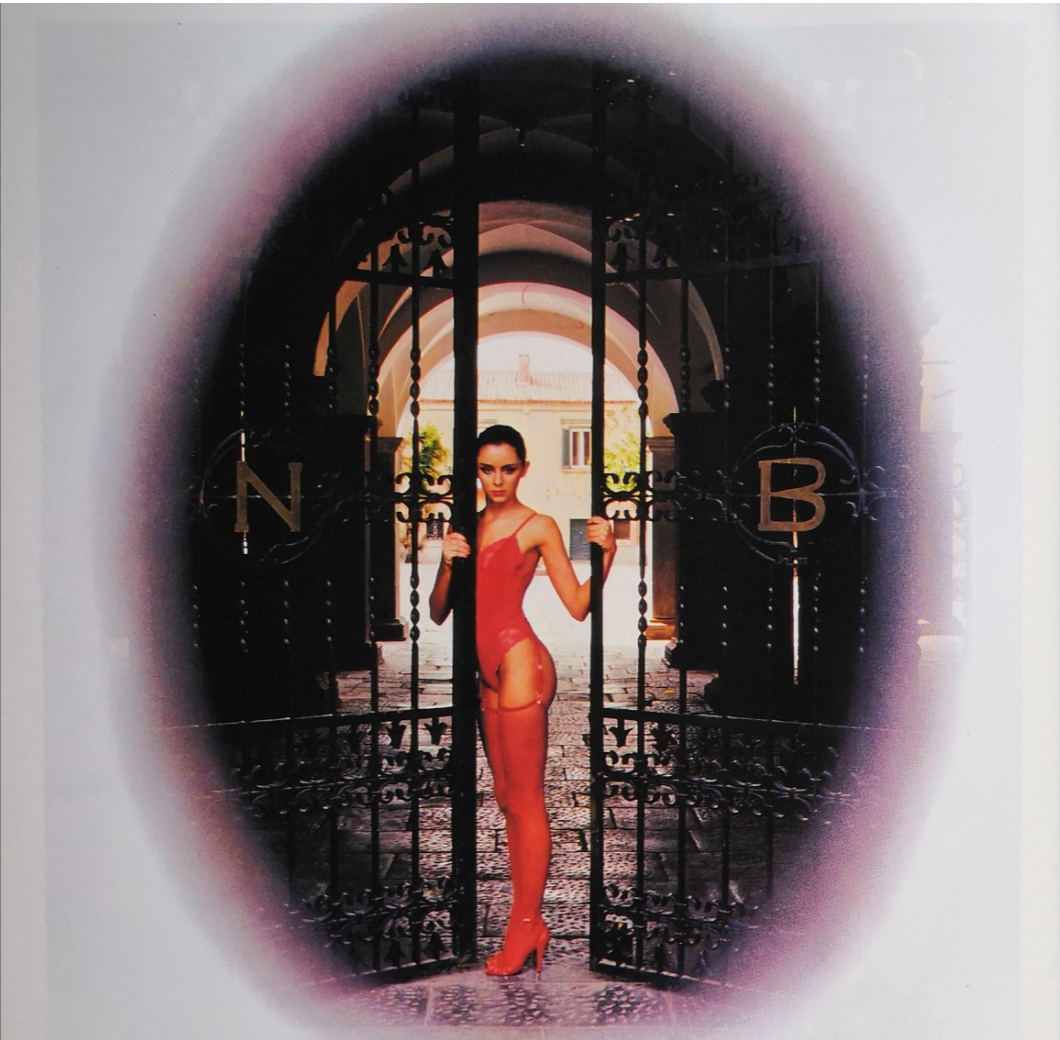

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